IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF TEXAS
MARSHALL DIVISION

INNOVATIVE DISPLAY TECHNOLOGIES LLC ET. AL., Plaintiffs, v. HYUNDAI MOTOR CO. ET AL., Defendants.	Civil Action No. 2:14-cv-201-JRG (CONSOLIDATED - Lead Case) **JURY TRIAL DEMANDED**

P.R. 4-3 JOINT CLAIM CONSTRUCTION AND PREHEARING STATEMENT

Pursuant to P.R. 4-3 and the Court's Docket Control Order of January 23, 2014 (Docket No. 37), plaintiffs Innovative Display Technologies LLC and Delaware Display Group LLC ("Plaintiffs") and defendants Hyundai Motor Company, Hyundai Motor Manufacturing Alabama, LLC, Kia Motors Manufacturing Georgia, Inc., Kia Motors America, Inc., Kia Motors Corporation; Mercedes-Benz U.S. International, Inc. and Mercedes-Benz USA, LLC; Nissan Motor Co., Ltd. and Nissan North America, Inc.; Toyota Motor Corp., Toyota Motor Sales, U.S.A., Inc., Toyota Motor Manufacturing, Kentucky, Inc., Toyota Motor Manufacturing, Indiana, Inc., Toyota Motor Manufacturing, Texas, Inc., Toyota Motor Manufacturing, Mississippi, Inc., Subaru of Indiana Automotive, Inc., and Gulf States Toyota, Inc.; Mazda Motor of America, Inc.; American Honda Motor Co., Inc., Honda of America Mfg., Inc., Honda Manufacturing of Alabama, LLC, and Honda Manufacturing of Indiana, LLC; Sprint Spectrum L.P., Sprint Solutions, Inc., Boost Mobile, LLC, and Virgin Mobile USA, L.P.; BMW of North America, LLC, and BMW Manufacturing Co., LLC; and Volkswagen Group of America, Inc.

and Volkswagen Group of America Chattanooga Operations, LLC (collectively, "Defendants") hereby serve this joint claim construction and prehearing statement.

The proposed claim terms listed below originate from U.S. Patent Nos. 7,300,194 ("the '194 patent"), 7,384,177 ("the '177 patent"), 7,404,660 ("the '660 patent"), 7,434,974 ("the '974 patent"), 7,537,370 ("the '370 patent"), and 8,215,816 ("the '816 patent") 7,914,196 ("the '196 patent"), 6,775,547 ("the '547 patent"), 6,508,563 ("the '563 patent"), and 6,886,956 ("the '956 patent") (collectively, "patents-in-suit").[1]

[1] For each claim term herein, each respective Defendant joins the proposed constructions only with regard to terms in claims asserted against that Defendant. In addition, at this time, Volkswagen Group of America, Inc. and Volkswagen Group of America Chattanooga Operations, LCC do not believe that any construction is necessary for Nos. 10 and 11 identified in the chart below.

The construction of those claim terms, phrases, or clauses on which the parties agree;

No.	Term	Agreed Construction
1	**"deformities"** '194 patent, claims 1, 16, 28, 31[2] '660 patent, claims 1, 33 '974 patent, claims 1, 7, 13 '370 patent, claims 1, 4, 8, 13, 29, 47 '816 patent, claim 1 '177 patent, claim 14	"any change in the shape or geometry of a surface and/or coating or surface treatment that causes a portion of the light to be emitted"
2	**"vary randomly"** '177 patent, claim 26 '370 patent, claim 37	plain meaning
3	**"posts, tabs, or other structural features that provide a mount"** '974 patent, claim 1, 7	plain meaning

[2] For instances in which a claim term first appears in an independent claim, that term's respective dependent claims have been omitted from these charts for brevity. Nonetheless, these terms and constructions should also be considered to apply to those respective dependent claims regardless of whether the term explicitly appears in the dependent claim. These terms and constructions also apply to asserted claims in which a respective term appears regardless of whether that claim is explicitly listed herein except where the specifications of the asserted claims significantly differ

4	**“transreflector”** ’563 patent, claim Claim 9	plain meaning
5	**“pattern of deformities”** ’660 patent, claims 1, 33	A pattern of deformities, including, but not limited to, a random placement pattern or a variable pattern.
6	**“pattern of light extracting deformities”** ’974 patent, claims 1, 7, 13 ’370 patent, claims 1, 13, 29, 47 ’816 patent, claim 1	A pattern of deformities, including, but not limited to, a random placement pattern or a variable pattern.
7	**“pattern of individual optical elements”** ’196 patent / Claim 1	A pattern of individual optical elements including, but not limited to, a random placement pattern or a variable pattern.

Each party's proposed construction of each disputed claim term, phrase, or clause, together with an identification of all references from the specification or prosecution history that support that construction, and an identification of any extrinsic evidence known to the party on which it intends to rely either to support its proposed construction of the claim or to oppose any other party's proposed construction of the claim, including, but not limited to, as permitted by law, dictionary definitions, citations to learned treatises and prior art, and testimony of percipient and expert witnesses;

No.	Term[3]	Proposed Construction	Evidence
8	**"continuous side walls"** '177 patent, claims 1, 15	Plaintiff's Construction plain meaning. Defendants' Construction "side walls free of discontinuities"	Plaintiff's Evidence No. 2:13-cv-522, Claim Construction Memorandum and Order (ECF 101) (Aug. 26, 2014) '177 patent at Abstract ("Light emitting assemblies include a tray that forms a cavity or recess containing one or more light sources. A sheet, film or substrate is positioned over the cavity or recess for controlling the light emitted from the assembly. The tray acts as a back, side or edge reflector, and has one or more secondary reflective or refractive surfaces."). '177 patent at col. 6, ln. 62 through col. 7, ln. 12 ("FIG. 6 shows another form of light emitting panel assembly 32 in accordance with this invention including a panel member 33, one or more light sources 3, and one or more light output areas 34. In addition, the panel assembly 32 includes a tray 35 having a cavity or recess 36 in which the panel assembly 32 is received. The tray 35 may act as a back reflector as well as end edge and/or side edge reflectors for the panel 33 and side and/or back reflectors 37 for the light sources 3. Additionally, one or more secondary reflective or refractive surfaces 38 may be provided on the panel member 33 and/or tray 35 to reflect a portion of the light around one or more corners or curves in a non-rectangular shaped panel member 33. These secondary reflective/refractive surfaces 38 may be

[3] Where the claim term appears in multiple patents having similar specifications, for brevity all citations to the same or similar language in each patent has not been included but should be deemed incorporated by this reference.

			flat, angled, faceted or curved, and may be used to extract a portion of the light away from the panel member in a predetermined pattern. FIG. 6 also shows multiple light output areas 34 on the panel member that emit light from one or more light sources 3."). '177 patent at Fig. 6. '177 patent at claims 1 and 15. Defendants' Evidence: **Intrinsic Evidence:** '177 Patent • 6:62-7:12: "FIG. 6 shows another form of light emitting panel assembly 32 in accordance with this invention including a panel member 33, one or more light sources 3, and one or more light output areas 34. In addition, the panel assembly 32 includes a tray 35 having a cavity or recess 36 in which the panel assembly 32 is received. The tray 35 may act as a back reflector as well as end edge and/or side edge reflectors for the panel 33 and side and/or back reflectors 37 for the light sources 3. Additionally, one or more secondary reflective or refractive surfaces 38 may be provided on the panel member 33 and/ or tray 35 to reflect a portion of the light around one or more corners or curves in a non-rectangular shaped panel member 33. These secondary reflective/refractive surfaces 38 may be flat, angled, faceted or curved, and may be used to extract a portion of the light away from the panel member in a predetermined pattern. FIG. 6 also shows multiple light output areas 34 on the panel member that emit light from one or more light sources 3."

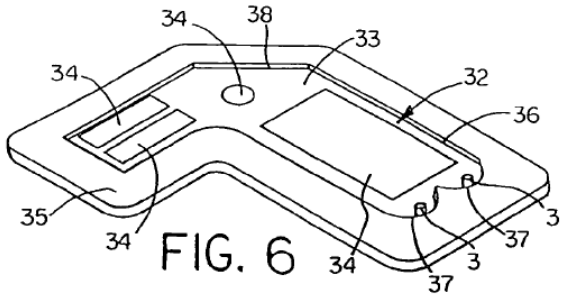


FIG. 6

- January 22, 2008 Amendment, p. 8: "Also according to the Examiner, the so-called tray 12 of Kitazawa acts as at least one of a back, side, and edge reflector (12c or 12d) and has one or more secondary flat, angled, faceted or curved reflective or refractive surfaces 12g for reflecting or refracting at least a portion of the light emitted by the light source (15 and 16) through the sheet, film or substrate (11 and 13) in a predetermined pattern.

  However, it is respectfully submitted that the so-called tray 12 of Kitazawa does not have a back wall and continuous side walls that form a hollow cavity or recess completely surrounded by the side walls in which at least one light source is located, mounted or positioned as recited in claims 1 and 16 as amended."
- January 22, 2008 Amendment, p. 8: "The examiner's attention is invited to an office action mailed August 28, 2007 in a related US application Serial No. 11/378/080 [the '974 patent] and the reply filed November 28, 2007. The Examiner in that application, Thomas Sember, is also the Examiner in this application."

'974 Patent

- August 28, 2007 Office Action, pp. 2-3.
- November 28, 2007 Response at pp. 6-8: "…However, it is respectfully submitted that the reflecting layer 16 of Schoniger is

			provided on the external surfaces of the light guide batten 12 at one end of the light guide panel 10 to redirect the light form the LED 15 that is received in a blind hole 14 in the batten 12 into the end of the light guide panel 10 that is set in the groove 11 in the batten. The so-called tray or housing 20 of Schoniger does not include end walls and side walls that act as end edge reflectors and side edge reflectors for a panel member entirely received in a cavity or recess in the tray or housing to reflect light that would otherwise exit the panel member through an end edge and/or side edge of the panel member back into the panel member as recited in claim 1 as amended……the light source 21 of Ciupke et al and light source fixture 6 of ai et al comprise a tray or housing having a cavity or recess in which the panel member is received, and acts as an end edge reflector and/or side edge reflector for the panel member. Applicant disagrees. Moreover, the light source 21 of Ciupke et al and light source fixture 66 of Tai et al do not have a cavity or recess in which the panel member is entirely received or end walls and side walls that act as end edge reflectors and side edge reflectors for the panel member as recited in claim 1 as amended." **Extrinsic Evidence:** *The American Heritage Dictionary of the English Language, Third Ed.* (1992) ("continuous" "uninterrupted in time, sequence, substance or extent … attached together in repeated units") ("continuity" "the state or quality of being continuous… an uninterrupted succession or flow; a coherent whole". *The Random House Dictionary of the English Language, Second Ed.* (1987) ("continuous" "uninterrupted in time; without cessation …being in immediate connection or spatial relationship") ("continuity" "the state or quality of being

			continuous… a continuous or connected whole").
9	**"transition region"** '370 patent, claims 13, 47 '660 patent, claims 1, 3, 10, 33	Plaintiff's Construction A region configured to transmit light. Defendants' Construction "an area used to make the transition from the light source to the light emitting area of the panel member ['370 patent] / optical conductor ['660 patent]."	Plaintiff's Evidence No. 2:13-cv-522, Claim Construction Memorandum and Order (ECF 101) (Aug. 26, 2014) '660 patent at col. 2, ln. 59 through col. 3, ln. 4 ("Referring now in detail to the drawings, and initially to FIG. 1, there is schematically shown one form of light emitting panel assembly 1 in accordance with this invention including a transparent light emitting panel 2 and one or more light sources 3 which emit light in a predetermined pattern in a light transition member or area 4 used to make the transition from the light source 3 to the light emitting panel 2, as well known in the art. The light that is transmitted by the light transition area 4 to the transparent light emitting panel 2 may be emitted along the entire length of the panel or from one or more light output areas along the length of the panel as desired to produce a desired light output distribution to fit a particular application."). '660 patent at col. 3, ll. 5-16 ("In FIG. 1 the light transition area 4 is shown as an integral extension of one end of the light emitting panel 2 and as being generally rectangular in shape. However, the light transition area may be of other shapes suitable for embedding, potting, bonding or otherwise mounting the light source. Also, reflective or refractive surfaces may be provided to increase efficiency. Moreover, the light transition area 4 may be a separate piece suitably attached to the light input surface 13 of the panel member if desired. Also, the sides of the light transition area may be curved to more efficiently reflect or refract a portion of the light emitted from the light source through the light emitting panel at an acceptable angle."). '660 patent at Figs. 1-3, 7-15.

			’660 patent at claims 1-3, 7-10, 20, 30, 31, 33, 35, and 37. ’660 patent, file history, May 15, 2007 Office Action. ’370 patent at all counterpart passages and figures as identified above by Plaintiff for the ’660 patent. ’370 patent at claims 13, 27, and 47. Defendants’ Evidence **Intrinsic Evidence:** ’370 patent • Summary of Invention, 1:32-42: “In accordance with one aspect of the invention, the light emitting panel assemblies include a light emitting panel member having a light transition area in which at least one light source is suitably mounted for transmission of light to the light input surface of the panel member. In accordance with another aspect of the invention, the light source is desirably embedded, potted or bonded to the light transition area to eliminate any air gaps, decrease surface reflections and/or eliminate any lens effect between the light source and light transition area, thereby reducing light loss and increasing the light output from the panel assembly.” • Summary of Invention: 1:60-64: “In accordance with yet another aspect of the invention, the panel assemblies include a transition area for mixing the multiple colored lights, prior to the light entering the panel members, in order to effect a desired colored

			or white light output distribution." • 2:58-65: "Referring now in detail to the drawings, and initially to FIG. 1, there is schematically shown one form of light emitting panel assembly 1 in accordance with this invention including a transparent light emitting panel 2 and one or more light sources 3 which emit light in a predetermined pattern in a light transition member or area 4 used to make the transition from the light source 3 to the light emitting panel 2, as well known in the art." • 3:4-4:2: "In FIG. 1 the light transition area 4 is shown as an integral extension of one end of the light emitting panel 2 and as being generally rectangular in shape. However, the light transition area may be of other shapes suitable for embedding, potting, bonding or otherwise mounting the light source. Also, reflective or refractive surfaces may be provided to increase efficiency. Moreover, the light transition area 4 may be a separate piece suitably attached to the light input surface 13 of the panel member if desired. Also, the sides of the light transition area may be curved to more efficiently reflect or refract a portion of the light emitted from the light source through the light emitting panel at an acceptable angle. FIG. 2 shows another form of light emitting panel assembly 5 in accordance with this invention including a panel light transition area 6 at one end of the light emitting panel 7 with sides 8, 9 around and behind the light source 3 shaped to more efficiently reflect and/or refract and focus the light emitted from the light source 3 that impinges on these surfaces back through the light transition area 6 at an acceptable angle for entering the light input surface 18 at one end of the light emitting panel 7. Also, a suitable reflective material or coating 10 may be provided on the portions of the sides of the light transition areas of the panel

			assemblies of FIGS. 1 and 2 on which a portion of the light impinges for maximizing the amount of light or otherwise changing the light that is reflected back through the light transition areas and into the light emitting panels. The panel assembly 11 of FIG. 3 includes a light transition area 12 at one end of the light emitting panel 14 having reflective and/or refractive surfaces 15 around and behind each light source 3. These surfaces 15 may be appropriately shaped including for example curved, straight and/or faceted surfaces, and if desired, suitable reflective materials or coatings may be provided on portions of these surfaces to more efficiently reflect and/or refract and focus a portion of the light emitted for example from an incandescent light source which emits light in a 360° pattern through the light transition areas 12 into the light input surface 19 of the light emitting panel 14. The light sources 3 may be mechanically held in any suitable manner in slots, cavities or openings 16 machined, molded or otherwise formed in the light transition areas of the panel assemblies. However, preferably the light sources 3 are embedded, potted or bonded in the light transition areas in order to eliminate any air gaps or air interface surfaces between the light sources and surrounding light transition areas, thereby reducing light loss and increasing the light output emitted by the light emitting panels. Such mounting of the light sources may be accomplished, for example, by bonding the light sources 3 in the slots, cavities or openings 16 in the light transition areas using a sufficient quantity of a suitable embedding, potting or bonding material 17. The slots, cavities or openings 16 may be on the top, bottom, sides or back of the light transition areas. Bonding can also be accomplished by a variety of methods that do not incorporate extra material, for example, thermal bonding, heat

staking, ultrasonic or plastic welding or the like. Other methods of bonding include insert molding and casting around the light source(s).

- Fig. 1; *see also* Figs. 2-3, 7-15

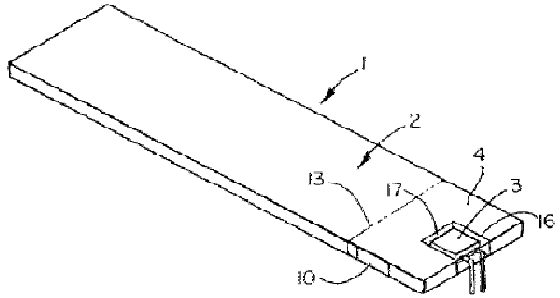


FIG. 1

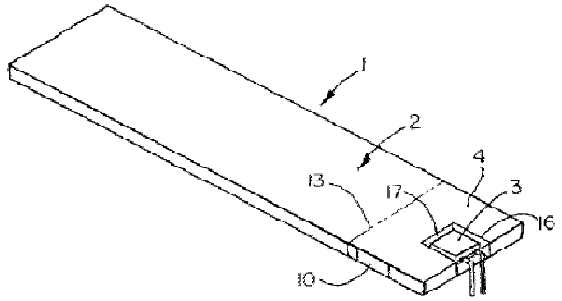
- 7:4-15: "FIG. 7 is a schematic illustration of still another form of light emitting panel assembly 40 in accordance with this invention including a panel member 41 having one or more light output areas 42 and one or more light transition areas (mixing areas) 43 containing a plurality of light sources 3 at one or both ends of the panel. Each transition area mixes the light from one or more light sources having different colors and/or intensities. In this particular embodiment, each of the light sources 3 desirably employs three colored LEDs (red, blue, green) in each transition mixing area 43 so that the light from the three LEDs can be mixed to produce a desired light output color that will be emitted from the light output area 42."

- 8:6-25: "FIGS. 12 and 13 schematically show still another form of light emitting panel assembly 70 in accordance with this invention which includes one or more light transition areas 71 at

			one or both ends of the panel member 72 each containing a single light source 73. The transition area or areas 71 shown in FIGS. 12 and 13 collect light with multiple or three-dimensional surfaces and/ or collect light in more than one plane. For example each transition area 71 shown in FIGS. 12 and 13 has elliptical and parabolic shape surfaces 74 and 75 in different planes for directing the light rays 76 into the panel member at a desired angle. Providing one or more transition areas at one or both ends of the panel member of any desired dimension to accommodate one or more light sources, with reflective and/or refractive surfaces on the transition areas for redirecting the light rays into the panel member at relatively low angles allows the light emitting panel member to be made much longer and thinner than would otherwise be possible. For example the panel members of the present invention may be made very thin, i.e., 0.125 inch thick or less." • 8:26-37: "FIG. 14 schematically illustrates still another form of light emitting panel assembly 80 in accordance with this invention including a light emitting panel 81 and one or more light sources 3 positioned, embedded, potted, bonded or otherwise mounted in a light transition area 82 that is at an angle relative to the panel member 81 to permit more efficient use of space. An angled or curved reflective or refractive surface 83 is provided at the junction of the panel member 81 with the transition area 82 in order to reflect/refract light from the light source 3 into the body of the panel member 81 for emission of light from one or more light emitting areas 84 along the length of the panel member." • 8:38-56: "FIG. 15 schematically illustrates still another form of light emitting panel assembly 90 in accordance with this

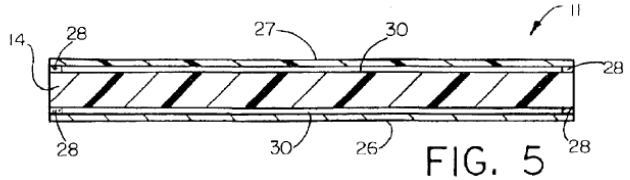
			invention including a light transition area 91 at one or both ends of a light emitting panel member 92 containing a slot 93 for sliding receipt of an LED or other suitable light source 3. Preferably the slot 93 extends into the transition area 91 from the back edge 94, whereby the light source 3 may be slid and/or snapped in place in the slot from the back, thus allowing the transition area to be made shorter and/or thinner. The light source 3 may be provided with wings, tabs or other surfaces 95 for engagement in correspondingly shaped recesses or grooves 96 or the like in the transition area 91 for locating and, if desired, securing the light source in place. Also, the light source 3 may be embedded, potted, bonded or otherwise secured within the slot 93 in the light transition area 91 of the panel member 92. Light from a secondary light source 97 may be projected through the panel member 92 for indication or some other effect." • Figures 1, 2, 7, 12, 13, 14, 15 • *See also* 7:22-29; 7:38-8:5. • July 10, 2008 Reply, p. 11-13: o "Moreover, it is not seen wherein there is at least one film, sheet or substrate overlying at least a portion of one of the sides of the panel member of Blanchet [U.S. Patent No. 4,811,507] . . . or wherein the panel member of Blanchet has a transition region between the input edge and the pattern of light extracting deformities containing optical elements on at least one side of the transition region for reflecting or refracting light as recited in claims 15, 31, and 53, wherein the optical elements on at least the one side of the transition region are faceted as further recited in claims 16, 32, and 54." o "Nor is it seen wherein the panel member of Albinger, Jr.

			[U.S. Patent No. 3,043,947] has a transition region between the input edge and the pattern of light extracting deformities containing optical elements on at least one side of the transition region for reflecting or refracting light as recited in claim 31, or wherein the optical elements on at least the one side of the transition region are faceted as further recited in claim 32." o "Moreover, it is not seen wherein the panel member of Balchunas [U.S. Patent No. 3,328,570] has a transition region between the input edge and the pattern of light extracting deformities containing optical elements on at least one side for reflecting or refracting light as recited in claim 31, or wherein the optical elements on one side are faceted as further recited in claim 32." '660 Patent • Abstract: "A transition region is disposed between the light source and output region that is configured to spread and transmit the light by the light source to the output region." • Claim 1: "the optical conductor having a transition region disposed between the light source and the output region." • Claims 2, 3, 7-9 (unasserted). • Claim 10: "The assembly of claim 1 wherein the transition region and the output region of the optical conductor have substantially the same thickness." • Claims 30, 30-31 (unasserted). • Claim 33: "the optical conductor having a transition region disposed between the light source and the output region." • Claims 35, 37 (unasserted). • Summary of Invention: 1:33-43; 1:61-65. • 2:59-3:4: "Referring now in detail to the drawings, and initially to FIG. 1, there is schematically shown one form of light emitting panel assembly 1 in accordance with this invention

			including a transparent light emitting panel 2 and one or more light sources 3 which emit light in a predetermined pattern in a light transition member or area 4 used to make the transition from the light source 3 to the light emitting panel 2, as well known in the art. The light that is transmitted by the light transition area 4 to the transparent light emitting panel 2 may be emitted along the entire length of the panel or from one or more light output areas along the length of the panel as desired to produce a desired light output distribution to fit a particular application." • 3:5-3:16: "In FIG. 1 the light transition area 4 is shown as an integral extension of one end of the light emitting panel 2 and as being generally rectangular in shape. However, the light transition area may be of other shapes suitable for embedding, potting, bonding or otherwise mounting the light source. Also, reflective or refractive surfaces may be provided to increase efficiency. Moreover, the light transition area 4 may be a separate piece suitably attached to the light input surface 13 of the panel member if desired. Also, the sides of the light transition area may be curved to more efficiently reflect or refract a portion of the light emitted from the light source through the light emitting panel at an acceptable angle."  FIG. 1

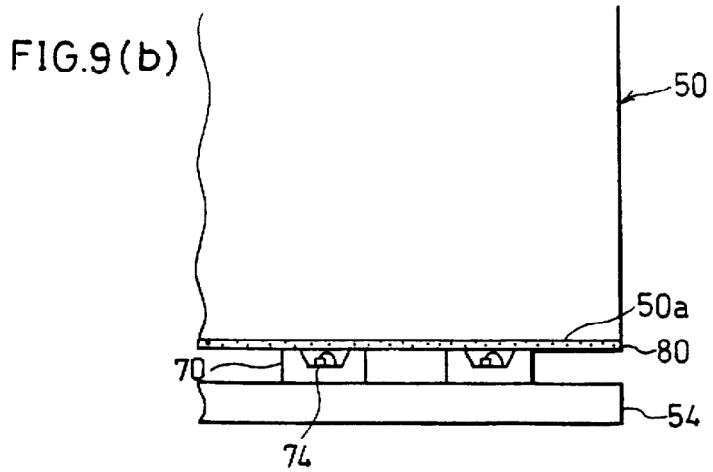
			• 3:17-31, 39-50; *see also* Figs. 1-3. • 3:51-59: "The light sources 3 may be mechanically held in any suitable manner in slots, cavities or openings 16 machined, molded or otherwise formed in the light transition areas of the panel assemblies. However, preferably the light sources 3 are embedded, potted or bonded in the light transition areas in order to eliminate any air gaps or air interface surfaces between the light sources and surrounding light transition areas, thereby reducing light loss and increasing the light output emitted by the light emitting panels." • 7:4-8:5. *See also* Figs. 7-11. • 8:6-26: "FIGS. 12 and 13 schematically show still another form of light emitting panel assembly 70 in accordance with this invention which includes one or more light transition areas 71 at one or both ends of the panel member 72 each containing a single light source 73. The transition area or areas 71 shown in FIGS. 12 and 13 collect light with multiple or three-dimensional surfaces and/ or collect light in more than one plane. For example each transition area 71 shown in FIGS. 12 and 13 has elliptical and parabolic shape surfaces 74 and 75 in different planes for directing the light rays 76 into the panel member at a desired angle. Providing one or more transition areas at one or both ends of the panel member of any desired dimension to accommodate one or more light sources, with reflective and/or refractive surfaces on the transition areas for redirecting the light rays into the panel member at relatively low angles allows the light emitting panel member to be made much longer and thinner than would otherwise be possible. For example the panel members of the present invention may be made very thin, i.e., 0.125 inch thick or less." • 8:27-56. • FIGs. 12-15.

			U.S. Patent No. 8,308,334 (continuation of continuation (abandoned) of continuation (abandoned) of division of continuation of division of CIP of division of 5,613,751, parent of the patents-in-suit) • July 30, 2012 Notice of Allowance, p. 2: In explaining why he allowed claims 1-11, the examiner explained that "Claim 1 claims among other things a light emitting assembly comprising: '. . . **a transition area between the light sources and the light input edge, whereby light from the light sources enters the transition area and mixes within the transition area prior to entering the panel member through the light input edge** and propagating within the panel member by total internal reflection, the transition area having refractive surfaces for redirecting the light into the panel member. . . and deformities on or in the panel member that cause light to be extracted from the panel member and pass through the hollow layer and out through the film which redirects the extracted light in desired directions to produce a desired output distribution or effect.'" This suggests that the transition region does not have to be in the optical conductor/panel member.
10	**"an air gap between the film, sheet, plate or substrate and the panel member"** '194 patent, claim 1	Plaintiff's Construction plain meaning Defendants' Construction "the film, sheet, plate or substrate and the panel member are held apart and do not fit snugly together"	Plaintiff's Evidence No. 2:13-cv-522, Claim Construction Memorandum and Order (ECF 101) (Aug. 26, 2014) '194 patent at col. 6, ll. 39-54 ("If adhesive 28 is used to adhere the back reflector 26 and/or sheet or film 27 to the panel, the adhesive is preferably applied only along the side edges of the panel, and if desired the end edge opposite the light transition areas 12, but not over the entire surface area or areas of the panel because of the difficulty in consistently applying a uniform coating of adhesive to the panel. Also, the adhesive changes the internal critical angle of the light in a less

			controllable manner than the air gaps 30 (see FIG. 5) which are formed between the respective panel surfaces and the back reflector 26 and/or sheet or film 27 when only adhered along the peripheral edges. Additionally, longer panel members are achievable when air gaps 30 are used. If adhesive were to be used over the entire surface, the pattern of deformities could be adjusted to account for the additional attenuation in the light caused by the adhesive."). '194 patent at Fig 5. '194 patent at claim 1, 6, 12, and 24. Defendants' Evidence **Intrinsic Evidence:** '194 Patent • FIG. 5: Note air gap 30.  FIG. 5 • Abstract: "The film, sheet, plate or substrate may be positioned near the light emitting surface of a light emitting panel member with an ***air gap*** therebetween or over a cavity or recess in a tray through which light from a light source in the cavity or recess is emitted." • '194 patent at col. 6, ll. 39-54 ("If adhesive 28 is used to adhere the back reflector 26 and/or sheet or film 27 to the panel, the adhesive is preferably applied only along the side edges of the panel, and if desired the end edge opposite the light transition areas 12, but not over the entire surface area or areas of the panel

			because of the difficulty in consistently applying a uniform coating of adhesive to the panel. Also, the adhesive changes the internal critical angle of the light in a less controllable manner than the air gaps 30 (see FIG. 5) which are formed between the respective panel surfaces and the back reflector 26 and/or sheet or film 27 when only adhered along the peripheral edges. Additionally, longer panel members are achievable when air gaps 30 are used. If adhesive were to be used over the entire surface, the pattern of deformities could be adjusted to account for the additional attenuation in the light caused by the adhesive."). • 1:38-44: "In accordance with another aspect of the invention, the light source is desirably embedded, potted or bonded to the light transition area to eliminate any ***air gaps***, decrease surface reflections and/or eliminate any lens effect between the light source and light transition area, thereby reducing light loss and increasing the light output from the panel assembly." • 3:60-65: "However, preferably the light sources 3 are embedded, potted or bonded in the light transition areas in order to eliminate any ***air gaps*** or air interface surfaces between the light sources and surrounding light transition areas, thereby reducing light loss and increasing the light output emitted by the light emitting panels." • Claim 6 (unasserted): "The assembly of claim 4 wherein the portion of the light emitting assembly in which the light partially mixes is the ***air gap***." • Claim 12 (unasserted): "The assembly of claim 11 wherein there is an additional ***air gap*** between the one film, sheet, plate or substrate and the additional film, sheet, plate or substrate." • Claim 24 (unasserted): "The assembly of claim 23 wherein there is an ***air gap*** between the one film, sheet, plate or substrate and the additional film, sheet, plate or substrate."

			’547 Patent • August 7, 2003 Amendment, p. 11: In his arguments, the Applicant states that in Hou (‘439), prior art, “the reflecting means 18 (including the spacer 82 that separates the microlenses 80 and microprisms 28) is optically coupled to the wave guide 16 (column 4, lines 14-17 and column 6, lines 61 and 62). Thus there is no air gap in Hou et al between the light emitting area of a light emitting member and a separate transparent sheet or film as claimed.” U.S. Patent No. 7,077,544 (division of U.S. Patent No. 6,712,481, an ancestor to the patents-in-suit) • August 29, 2005 Amendment: The specification was amended to say that, “Also the gap is open to the atmosphere.” Claim 1 was also amended to overcome prior art by saying that the device comprises a substrate, a light source affixed to the substrate, and a transparent member overlying the light source in spaced relation therefrom “to provide an open gap between the light source and the transparent member for mixing of the light . . .” Claim 9 was amended to add that “the gap is an air gap that is open to the atmosphere.” Claims 19 and 31 were similarly amended. • August 29, 2005 Amendment: Prior art, Ohtsuki (‘665) mentioned that a transparent member overlying the LED light sources in spaced relation therefrom to provide an air gap therebetween. The prosecutor mentioned that while an air gap is shown in the Ohtsuki figures, Ohtsuki makes clear that the LED lamps 70 and the block-shaped member 91 are pressed on the transparent gel layer 80 formed on the light incident surface 50a so as to be held closely in contact therewith to eliminate an air layer between the light directing plate and the LED lamps. See Fig. 9(b) below. “Thus, there is no open gap between the light source and the transparent member.” Further, the light sources

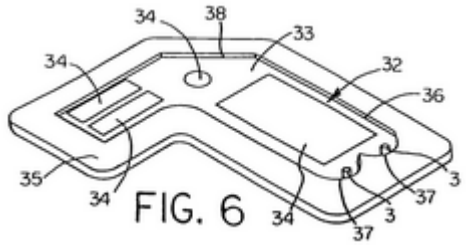
			of Ohtsuki are not mounted in spaced relation from the transparent member "with a gap between the light sources and the transparent member that is open to the atmosphere."  '974 Patent • Reply to Final Office Action of May 8, 2008, dated August 8, 2008: o "Furthermore, the plate-like projecting portion 40 of the light conducting plate 39 of Sakuma [U.S. Patent No. 5,184,888] **fits snugly** into the opening 35 in the decorative panel 33 (column 5, lines 25-27, Fig. 7), and thus there is not [sic] air gap between the light emitting panel member and an additional component as recited in claim 18." o "The Examiner also refers to the engaging pawl pieces 38 of Sakuma (column 5, lines 12-15, Fig. 8) as tabs or posts. However, engaging pawl pieces 38 are attached to the decorative panel 33 and not to the light conducting plate 39. Thus they do not meet the limitations of the

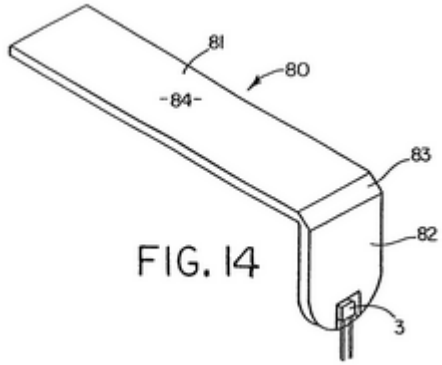
			panel member having a tab, hole, cavity or protrusion that positions the tray or housing relative to the panel member as recited in claim 16 or that positions an additional component overlying the panel member relative to the panel member and **holds the additional component away from** the panel member to create an air gap between the panel member and the additional component as recited in claim 18." o "The light conducting plate 39 of Sakuma includes a "'plate-like projecting portion 40 for snugly fitting in the opening 35 in the decorative plate 33' (column 5, lines 25-27). However, since projection portion 40 projects from the light conducting panel 39, it does not meet the limitations of a structural feature as recited in claims 1 and 4. Moreover, since the projecting portion 40 of Sakuma **fits snugly** within the decorative panel, there is no air gap between the panel member and an additional component as recited in claim 18." o "Nor is the sold-called tab of Murase [U.S. Patent No. 5,207,493] a tab on the panel member that positions the tray or housing relative to the panel member as recited in claim 16 or that positions an additional component overlying the panel member relative to the panel member and **holds the additional component away from** the panel member to create an air gap between the panel member and the additional support as recited in claim 18." o "Nor are the leads 5a and 5h of Tada [U.S. Patent No. 5,050,046] from the light emitting panel member for positioning the tray or housing relative to the panel

			member as recited in claim 16 or for positioning an additional component overlying the panel member relative to the panel member and **holding the additional component away** from the panel member to create an air gap between the panel member and the additional component as recited in claim 18."
11	**"one or more secondary flat, angled, faceted or curved reflective or refractive surfaces"** '177 patent, claims 1, 15	Plaintiff's Construction plain meaning Defendants' Construction "reflective or refractive surfaces that reflect or refract a portion of the light around one or more corners or curves in a non-rectangular shaped tray."	Plaintiff's Evidence '177 patent at Col. 1, ll. 46-52 ("In accordance with another aspect of the invention, the panel assemblies may include reflective or refractive surfaces for changing the path of a portion of the light, emitted from the light source, that would not normally enter the panel members at an acceptable angle that allows the light to remain in the panel members for a longer period of time and/or increase the efficiency of the panel members.") '177 patent at Col. 3, ll. 23-37 ("FIG. 2 shows another form of light emitting panel assembly 5 in accordance with this invention including a panel light transition area 6 at one end of the light emitting panel 7 with sides 8, 9 around and behind the light source 3 shaped to more efficiently reflect and/or refract and focus the light emitted from the light source 3 that impinges on these surfaces back through the light transition area 6 at an acceptable angle for entering the light input surface 18 at one end of the light emitting panel 7. Also, a suitable reflective material or coating 10 may be provided on the portions of the sides of the light transition areas of the panel assemblies of FIGS. 1 and 2 on which a portion of the light impinges for maximizing the amount of light or otherwise changing the light that is reflected back through the light transition areas and into the light emitting panels.") '177 patent at Col. 3, ll. 45-56 ("The panel assembly 11 of FIG. 3 includes a light transition area 12 at one end of the light emitting panel 14 having reflective and/or refractive surfaces 15 around and behind

			each light source 3. These surfaces 15 may be appropriately shaped including for example curved, straight and/or faceted surfaces, and if desired, suitable reflective materials or coatings may be provided on portions of these surfaces to more efficiently reflect and/or refract and focus a portion of the light emitted for example from an incandescent light source which emits light in a 360° pattern through the light transition areas 12 into the light input surface 19 of the light emitting panel 14.") '177 patent at Col. 6, ll. 18-24 ("As best seen in the cross sectional view of FIG. 5, a back reflector (including trans reflectors) 26 may be attached or positioned against one side of the panel member 14 of FIG. 3 using a suitable adhesive 28 or other method in order to improve light output efficiency of the panel assembly 11 by reflecting the light emitted from that side back through the panel for emission through the opposite side.") '177 patent at Col. 6, ll. 39-49 ("If adhesive 28 is used to adhere the back reflector 26 and/or film 27 to the panel, the adhesive is preferably applied only along the side edges of the panel, and if desired the end edge opposite the light transition areas 12, but not over the entire surface area or areas of the panel because of the difficulty in consistently applying a uniform coating of adhesive to the panel. Also, the adhesive changes the internal critical angle of the light in a less controllable manner than the air gaps 30 (see FIG. 5) which are formed between the respective panel surfaces and the back reflector 26 and/or film 27 when only adhered along the peripheral edges.") '177 patent at Col. 6, l. 62 – Col. 7 l. 12 ("FIG. 6 shows another form of light emitting panel assembly 32 in accordance with this invention including a panel member 33, one or more light sources 3, and one or more light output areas 34. In addition, the panel assembly 32 includes a tray 35 having a cavity or recess 36 in which the panel assembly 32 is received. The tray 35 may

			act as a back reflector as well as end edge and/or side edge reflectors for the panel 33 and side and/or back reflectors 37 for the light sources 3. Additionally, one or more secondary reflective or refractive surfaces 38 may be provided on the panel member 33 and/or tray 35 to reflect a portion of the light around one or more corners or curves in a non-rectangular shaped panel member 33. These secondary reflective/refractive surfaces 38 may be flat, angled, faceted or curved, and may be used to extract a portion of the light away from the panel member in a predetermined pattern. FIG. 6 also shows multiple light output areas 34 on the panel member that emit light from one or more light sources 3.") '177 patent at Col. 7, ll. 58-65 ("A reflector 58 may be placed on the reflective or refractive surface of the cavity or recess 56 or insert 57. Where the reflector 58 is placed on the reflective or refractive surface of the cavity or recess 56, the cavity or recess may act as a mold permitting transparent material from which the transition area 57 is made to be cast around one or more light sources 3.") '177 patent at Col. 8, ll. 7-16 ("Also, a three-dimensional reflective surface 64 (FIG. 11) may be provided on the transition area 63. Moreover, a prism 65 (FIG. 11) or tapered, rounded, or otherwise shaped end 66 (FIG. 11a) may be provided at the end of the panel opposite the light sources 3 to perform the function of an end reflector. The light sources 3 may be oriented at different angles relative to each other and offset to facilitate better mixing of the light rays 67 in the transition area 63 as schematically shown in FIG. 10 and/or to permit a shorter length transition area 63 to be used.") '177 patent at Col. 8, ll. 44-49 ("An angled or curved reflective or refractive surface 83 is provided at the junction of the panel member 81 with the transition area 82 in order to reflect/refract light from the light source 3 into the body of the panel member 81 for emission of light from one or more light emitting areas 84 along the length of the panel

			member.") '177 patent at Col. 9, ll. 7-12 ("Also the panel assemblies may be made such that the panel members and deformities are transparent without a back reflector. This allows the panel assemblies to be used for example to front light an LCD or other display such that the display is viewed through the transparent panel members.") '177 patent at Figures 1, 2, 3, 5, 6, 9, 10, 11, 11a, 13, 14 '177 patent claims 1 and 15 <u>Defendants' Evidence</u> '177 patent **<u>Abstract:</u>** "Light emitting assemblies include a tray that forms a cavity or recess containing one or more light sources. A sheet, film or substrate is positioned over the cavity or recess for controlling the light emitted from the assembly. The tray acts as a back, side or edge reflector, and has one or more secondary reflective or refractive surfaces." Fig. 6  FIG. 6 6:62-7:12: "FIG. 6 shows another form of light emitting panel assembly 32 in accordance With this invention including a panel member 33, one or more light sources 3, and one or more light output areas 34. In

			addition, the panel assembly 32 includes a tray 35 having a cavity or recess 36 in which the panel assembly 32 is received. The tray 35 may act as a back reflector as well as end edge and/or side edge reflectors for the panel 33 and side and/or back reflectors 37 for the light sources 3. Additionally, one or more secondary reflective or refractive surfaces 38 may be provided on the panel member 33 and/ or tray 35 to reflect a portion of the light around one or more corners or curves in a non-rectangular shaped panel member 33. These secondary reflective/refractive surfaces 38 may be flat, angled, faceted or curved, and may be used to extract a portion of the light away from the panel member in a predetermined pattern. FIG. 6 also shows multiple light output areas 34 on the panel member that emit light from one or more light sources 3." Fig. 14  FIG. 14 8:38-49 FIG. 14 schematically illustrates still another form of light emitting panel assembly 80 in accordance with this invention including a light emitting panel 81 and one or more light sources 3 positioned, embedded, potted, bonded or otherwise mounted in a light transition

			area 82 that is at an angle relative to the panel member 81 to permit more efficient use of space. An angled or curved reflective or refractive surface 83 is provided at the junction of the panel member 81 with the transition area 82 in order to reflect/refract light from the light source 3 into the body of the panel member 81 for emission of light from one or more light emitting areas 84 along the length of the panel member. January 22, 2008 Amendment, p. 8: "Also according to the Examiner, the so-called tray 12 of Kitazawa acts as at least one of a back, side, and edge reflector (12c or 12d) and has one or more secondary flat, angled, faceted or curved reflective or refractive surfaces 12g for reflecting or refracting at least a portion of the light emitted by the light source (15 and 16) through the sheet, film or substrate (11 and 13) in a predetermined pattern. However, it is respectfully submitted that the so-called tray 12 of Kitazawa does not have a back wall and continuous side walls that form a hollow cavity or recess completely surrounded by the side walls in which at least one light source is located, mounted or positioned as recited in claims 1 and 16 as amended. Nor do the so-called secondary flat, angled, faceted or curved reflective or refractive surfaces 12g of Kitazawa redirect at least a portion of the light emitted by the light source in a predetermined manner within the cavity or recess in the tray as further recited in claims 1 and 16 as amended. Claim 2 (unasserted): The assembly of claim 1 wherein the refractive or reflective surfaces are flat, planar or curved. Claim 3 (unasserted): The assembly of claim 1 wherein the refractive or reflective surfaces are prismatic or lenticular surfaces. Claim 4 (unasserted): The assembly of claim 1 wherein the refractive or reflective surfaces are quite small compared to the length and width of the tray.

			Claim 5 (unasserted): The assembly of claim 1 wherein the refractive or reflective surfaces are in close proximity to and around and behind the light source. Claim 17 (unasserted): The assembly of claim 16 wherein the secondary reflective or refractive surface promotes mixing of different color light to make white light.
12	**"predetermined"** '370 patent, claims 1, 13, 29, 47 '177 patent, claims 1 '660 patent, claims 1, 33	<u>Plaintiff's Construction</u> Fixed <u>Defendants' Construction</u> This term does not require construction beyond its plain and ordinary meaning.	<u>Plaintiff's Evidence</u> No. 2:13-cv-522, Claim Construction Memorandum and Order (ECF 101) (Aug. 26, 2014) '370 patent at Abstract ("Light emitting panel assemblies include an optical panel member having a pattern of light extracting deformities on or in one or both sides to cause light to be emitted in a predetermined output distribution. The pattern of light extracting deformities on or in one side may have two or more different types or shapes of deformities and at least one of the types or shapes may vary along the length or width of the panel member. Where the light extracting deformities are on or in both sides, at least some of the deformities on or in one side may be of a different type or shape or vary in a different way or manner than the deformities on or in the other side."). '370 patent at col. 1, ll. 18-22 ("This invention relates generally, as indicated, to light emitting panel assemblies each including a transparent panel member for efficiently conducting light, and controlling the light conducted by the panel member to be emitted from one or more light output areas along the length thereof."). '370 patent at col. 1, ll. 23-28 ("Light emitting panel assemblies are generally known. However, the present invention relates to several

			different light emitting panel assembly configurations which provide for better control of the light output from the panel assemblies and for more efficient utilization of light, which results in greater light output from the panel assemblies."). '370 patent at col. 1, ll. 43-49 ("In accordance with another aspect of the invention, the panel assemblies may include reflective or refractive surfaces for changing the path of a portion of the light, emitted from the light source, that would not normally enter the panel members at an acceptable angle that allows the light to remain in the panel members for a longer period of time and/or increase the efficiency of the panel members."). '370 patent at col. 1, ll. 50-55 ("In accordance with another aspect of the invention, the light emitting panel members include a pattern of light extracting deformities or disruptions which provide a desired light output distribution from the panel members by changing the angle of refraction of a portion of the light from one or more light output areas of the panel members."). '370 patent at col. 1, ln. 65 through col. 2 ln. 3 ("The various light emitting panel assemblies of the present invention are very efficient panel assemblies that may be used to produce increased uniformity and higher light output from the panel members with lower power requirements, and allow the panel members to be made thinner and/or longer, and/or of various shapes and sizes."). '370 patent at col. 2, ll. 18-20 ("FIG. 4a is an enlarged plan view of a portion of a light output area of a panel assembly showing one form of pattern of light extracting deformities on the light output area;"). '370 patent at col. 2, ll. 21-24 ("FIGS. 4b, c and d are enlarged schematic perspective views of a portion of a light output area of a panel

			assembly showing other forms of light extracting deformities formed in or on the light output area;"). '370 patent at col. 2, ln. 58 through col. 3, ln. 3 ("Referring now in detail to the drawings, and initially to FIG. 1, there is schematically shown one form of light emitting panel assembly 1 in accordance with this invention including a transparent light emitting panel 2 and one or more light sources 3 which emit light in a predetermined pattern in a light transition member or area 4 used to make the transition from the light source 3 to the light emitting panel 2, as well known in the art. The light that is transmitted by the light transition area 4 to the transparent light emitting panel 2 may be emitted along the entire length of the panel or from one or more light output areas along the length of the panel as desired to produce a desired light output distribution to fit a particular application."). '370 patent at col. 3, ll. 8-9 ("Also, reflective or refractive surfaces may be provided to increase efficiency."). '370 patent at col. 3, ll. 12-15 ("Also, a suitable reflective material or coating 10 may be provided on the portions of the sides of the light transition areas of the panel assemblies of FIGS. 1 and 2 on which a portion of the light impinges for maximizing the amount of light or otherwise changing the light that is reflected back through the light transition areas and into the light emitting panels."). '370 patent at col. 4, ll. 31-47 ("A pattern of light extracting deformities or disruptions may be provided on one or both sides of the panel members or on one or more selected areas on one or both sides of the panel members, as desired. FIG. 4a schematically shows one such light surface area 20 on which a pattern of light extracting deformities or disruptions 21 is provided. As used herein, the term deformities or disruptions are used interchangeably to mean any change in the shape or

			geometry of the panel surface and/or coating or surface treatment that causes a portion of the light to be emitted. The pattern of light extracting deformities 21 shown in FIG. 4a includes a variable pattern which breaks up the light rays such that the internal angle of reflection of a portion of the light rays will be great enough to cause the light rays either to be emitted out of the panel through the side or sides on which the light extracting deformities 21 are provided or reflected back through the panel and emitted out the other side."). '370 patent at col. 4, ll. 48-61 ("These deformities or disruptions 21 can be produced in a variety of manners, for example, by providing a painted pattern, an etched pattern, a machined pattern, a printed pattern, a hot stamped pattern, or a molded pattern or the like on selected light output areas of the panel members. An ink or printed pattern may be applied for example by pad printing, silk screening, ink jet, heat transfer film process or the like. The deformities may also be printed on a sheet or film which is used to apply the deformities to the panel member. This sheet or film may become a permanent part of the light panel assembly for example by attaching or otherwise positioning the sheet or film against one or both sides of the panel member similar to the sheet or film 27 shown in FIGS. 3 and 5 in order to produce a desired effect."); '370 patent at col. 4, ln. 62 through col. 5, ln. 4 ("By varying the density, opaqueness or translucence, shape, depth, color, area, index of refraction, or type of deformities 21 on an area or areas of the panels, the light output of the panels can be controlled. The deformities or disruptions may be used to control the percent of light emitted from any area of the panels. For example, less and/or smaller size deformities 21 may be placed on panel areas where less light output is wanted. Conversely, a greater percentage of and/or larger deformities may be placed on areas of the panels where greater light output is desired."). '370 patent at col. 5, ll. 5-16 ("Varying the percentages and/or size of

			deformities in different areas of the panel is necessary in order to provide a uniform light output distribution. For example, the amount of light traveling through the panels will ordinarily be greater in areas closer to the light source than in other areas further removed from the light source. A pattern of light extracting deformities 21 may be used to adjust for the light variances within the panel members, for example, by providing a denser concentration of light extracting deformities with increased distance from the light source 3 thereby resulting in a more uniform light output distribution from the light emitting panels."). '370 patent at col. 5, ll. 17-23 ("The deformities 21 may also be used to control the output ray angle distribution of the emitted light to suit a particular application. For example, if the panel assemblies are used to provide a liquid crystal display backlight, the light output will be more efficient if the deformities 21 cause the light rays to emit from the panels at predetermined ray angles such that they will pass through the liquid crystal display with low loss."). '370 patent at col. 5, ll. 24-33 ("Additionally, the pattern of light extracting deformities may be used to adjust for light output variances attributed to light extractions of the panel members. The pattern of light extracting deformities 21 may be printed on the light output areas utilizing a wide spectrum of paints, inks, coatings, epoxies, or the like, ranging from glossy to opaque or both, and may employ half-tone separation techniques to vary the deformity 21 coverage. Moreover, the pattern of light extracting deformities 21 may be multiple layers or vary in index of refraction."). '370 patent at col. 5, ll. 34-56 ("Print patterns of light extracting deformities 21 may vary in shapes such as dots, squares, diamonds, ellipses, stars, random shapes, and the like, and are desirably 0.006 square inch per deformity/element or less. Also, print patterns that are 60 lines per inch or finer are desirably employed, thus making the

			deformities or shapes 21 in the print patterns nearly invisible to the human eye in a particular application thereby eliminating the detection of gradient or banding lines that are common to light extracting patterns utilizing larger elements. Additionally, the deformities may vary in shape and/or size along the length and/or width of the panel members. Also, a random placement pattern of the deformities may be utilized throughout the length and/or width of the panel members. The deformities may have shapes or a pattern with no specific angles to reduce moire or other interference effects. Examples of methods to create these random patterns are printing a pattern of shapes using stochastic print pattern techniques, frequency modulated half tone patterns, or random dot half tones. Moreover, the deformities may be colored in order to effect color correction in the panel members. The color of the deformities may also vary throughout the panel members, for example to provide different colors for the same or different light output areas."). '370 patent at col. 5, ln. 57 through col. 6, ln. 7 ("In addition to or in lieu of the patterns of light extracting deformities 21 shown in FIG. 4a, other light extracting deformities including prismatic surfaces, depressions or raised surfaces of various shapes using more complex shapes in a mold pattern may be molded, etched, stamped, thermoformed, hot stamped or the like into or on one or more areas of the panel member. FIGS. 4b and 4c show panel areas 22 on which prismatic surfaces 23 or depressions 24 are formed in the panel areas, whereas FIG. 4d shows prismatic or other reflective or refractive surfaces 25 formed on the exterior of the panel area. The prismatic surfaces, depressions or raised surfaces will cause a portion of the light rays contacted thereby to be emitted from the panel member. Also, the angles of the prisms, depressions or other surfaces may be varied to direct the light in different directions to produce a desired light output distribution or effect. Moreover, the reflective or refractive surfaces may have shapes or a pattern with no specific angles to reduce moire or other

			interference effects."). '370 patent at col. 6, ll. 15-24 ("Additionally, a pattern of light extracting deformities 21, 23, 24 and/or 25 may be provided on one or both sides of the panel member in order to change the path of the light so that the internal critical angle is exceeded and a portion of the light is emitted from one or both sides of the panel. Moreover, a transparent film, sheet or plate 27 may be attached or positioned against the side or sides of the panel member from which light is emitted using a suitable adhesive 28 or other method in order to produce a desired effect."). '370 patent at col. 6, ln. 53 through col. 7, ln. 3 ("FIG. 6 shows another form of light emitting panel assembly 32 in accordance with this invention including a panel member 33, one or more light sources 3, and one or more light output areas 34. In addition, the panel assembly 32 includes a tray 35 having a cavity or recess 36 in which the panel assembly 32 is received. The tray 35 may act as a back reflector as well as end edge and/or side edge reflectors for the panel 33 and side and/or back reflectors 37 for the light sources 3. Additionally, one or more secondary reflective or refractive surfaces 38 may be provided on the panel member 33 and/or tray 35 to reflect a portion of the light around one or more corners or curves in a non-rectangular shaped panel member 33. These secondary reflective/refractive surfaces 38 may be flat, angled, faceted or curved, and may be used to extract a portion of the light away from the panel member in a predetermined pattern. FIG. 6 also shows multiple light output areas 34 on the panel member that emit light from one or more light sources 3."). '370 patent at col. 7, ll. 38-54 ("Moreover, a separate cavity or recess 56 may be provided in the panel member 51 for receipt of a correspondingly shaped light transition area 57 having one or more light sources 3 embedded, bonded, cast, insert molded, epoxied, or otherwise mounted or positioned therein and a curved reflective or refractive

			surface 58 on the transition area 57 and/or wall of the cavity or recess 56 to redirect a portion of the light in a predetermined manner. In this way the light transition area 57 and/or panel member may be in the form of a separate insert which facilitates the easy placement of the light source in a modular manner. A reflector 58 may be placed on the reflective or refractive surface of the cavity or recess 56 or insert 57. Where the reflector 58 is placed on the reflective or refractive surface of the cavity or recess 56, the cavity or recess may act as a mold permitting transparent material from which the transition area 57 is made to be cast around one or more light sources 3."). '370 patent at col. 8, ll. 57-67 ("The various light emitting panel assemblies disclosed herein may be used for a great many different applications including for example LCD back lighting or lighting in general, decorative and display lighting, automotive lighting, dental lighting, phototherapy or other medical lighting, membrane switch lighting, and sporting goods and apparel lighting or the like. Also the panel assemblies may be made such that the panel members and deformities are transparent without a back reflector. This allows the panel assemblies to be used for example to front light an LCD or other display such that the display is viewed through the transparent panel members."). '370 patent at Figs. 1-15. '370 patent at claims 1, 13, 15, 27, 29, and 47. For the '177 patent, all counterpart passages and figures as identified above by Plaintiff for the '370 patent. '177 patent at claims 1-5, 11, and 12. For the '660 patent, all counterpart passages and figures as identified

			above by Plaintiff for the ’370 patent. ’660 patent at claim 1, 33. <u>Defendants’ Evidence</u> ’370 patent at Abstract (“Light emitting panel assemblies include an optical panel member having a pattern of light extracting deformities on or in one or both sides to cause light to be emitted in a predetermined output distribution. The pattern of light extracting deformities on or in one side may have two or more different types or shapes of deformities and at least one of the types or shapes may vary along the length or width of the panel member. Where the light extracting deformities are on or in both sides, at least some of the deformities on or in one side may be of a different type or shape or vary in a different way or manner than the deformities on or in the other side.”). ’370 patent at col. 1, ll. 18-22 (“This invention relates generally, as indicated, to light emitting panel assemblies each including a transparent panel member for efficiently conducting light, and controlling the light conducted by the panel member to be emitted from one or more light output areas along the length thereof.”). ’370 patent at col. 1, ll. 23-28 (“Light emitting panel assemblies are generally known. However, the present invention relates to several different light emitting panel assembly configurations which provide for better control of the light output from the panel assemblies and for more efficient utilization of light, which results in greater light output from the panel assemblies.”). ’370 patent at col. 1, ll. 43-49 (“In accordance with another aspect of the invention, the panel assemblies may include reflective or refractive surfaces for changing the path of a portion of the light, emitted from the

			light source, that would not normally enter the panel members at an acceptable angle that allows the light to remain in the panel members for a longer period of time and/or increase the efficiency of the panel members."). '370 patent at col. 1, ll. 50-55 ("In accordance with another aspect of the invention, the light emitting panel members include a pattern of light extracting deformities or disruptions which provide a desired light output distribution from the panel members by changing the angle of refraction of a portion of the light from one or more light output areas of the panel members."). '370 patent at col. 1, ln. 65 through col. 2 ln. 3 ("The various light emitting panel assemblies of the present invention are very efficient panel assemblies that may be used to produce increased uniformity and higher light output from the panel members with lower power requirements, and allow the panel members to be made thinner and/or longer, and/or of various shapes and sizes."). '370 patent at col. 2, ll. 18-20 ("FIG. 4a is an enlarged plan view of a portion of a light output area of a panel assembly showing one form of pattern of light extracting deformities on the light output area;"). '370 patent at col. 2, ll. 21-24 ("FIGS. 4b, c and d are enlarged schematic perspective views of a portion of a light output area of a panel assembly showing other forms of light extracting deformities formed in or on the light output area"). '370 patent at col. 2, ln. 58 through col. 3, ln. 3 ("Referring now in detail to the drawings, and initially to FIG. 1, there is schematically shown one form of light emitting panel assembly 1 in accordance with this invention including a transparent light emitting panel 2 and one or more light sources 3 which emit light in a predetermined pattern in a

			light transition member or area 4 used to make the transition from the light source 3 to the light emitting panel 2, as well known in the art. The light that is transmitted by the light transition area 4 to the transparent light emitting panel 2 may be emitted along the entire length of the panel or from one or more light output areas along the length of the panel as desired to produce a desired light output distribution to fit a particular application."). '370 patent at col. 3, ll. 8-9 ("Also, reflective or refractive surfaces may be provided to increase efficiency."). '370 patent at col. 3, ll. 12-15 ("Also, a suitable reflective material or coating 10 may be provided on the portions of the sides of the light transition areas of the panel assemblies of FIGS. 1 and 2 on which a portion of the light impinges for maximizing the amount of light or otherwise changing the light that is reflected back through the light transition areas and into the light emitting panels."). '370 patent at col. 4, ll. 31-47 ("A pattern of light extracting deformities or disruptions may be provided on one or both sides of the panel members or on one or more selected areas on one or both sides of the panel members, as desired. FIG. 4a schematically shows one such light surface area 20 on which a pattern of light extracting deformities or disruptions 21 is provided. As used herein, the term deformities or disruptions are used interchangeably to mean any change in the shape or geometry of the panel surface and/or coating or surface treatment that causes a portion of the light to be emitted. The pattern of light extracting deformities 21 shown in FIG. 4a includes a variable pattern which breaks up the light rays such that the internal angle of reflection of a portion of the light rays will be great enough to cause the light rays either to be emitted out of the panel through the side or sides on which the light extracting deformities 21 are provided or reflected back through the panel and emitted out the other side.").

			’370 patent at col. 4, ll. 48-61 (“These deformities or disruptions 21 can be produced in a variety of manners, for example, by providing a painted pattern, an etched pattern, a machined pattern, a printed pattern, a hot stamped pattern, or a molded pattern or the like on selected light output areas of the panel members. An ink or printed pattern may be applied for example by pad printing, silk screening, ink jet, heat transfer film process or the like. The deformities may also be printed on a sheet or film which is used to apply the deformities to the panel member. This sheet or film may become a permanent part of the light panel assembly for example by attaching or otherwise positioning the sheet or film against one or both sides of the panel member similar to the sheet or film 27 shown in FIGS. 3 and 5 in order to produce a desired effect.”); ’370 patent at col. 4, ln. 62 through col. 5, ln. 4 (“By varying the density, opaqueness or translucence, shape, depth, color, area, index of refraction, or type of deformities 21 on an area or areas of the panels, the light output of the panels can be controlled. The deformities or disruptions may be used to control the percent of light emitted from any area of the panels. For example, less and/or smaller size deformities 21 may be placed on panel areas where less light output is wanted. Conversely, a greater percentage of and/or larger deformities may be placed on areas of the panels where greater light output is desired.”). ’370 patent at col. 5, ll. 5-16 (“Varying the percentages and/or size of deformities in different areas of the panel is necessary in order to provide a uniform light output distribution. For example, the amount of light traveling through the panels will ordinarily be greater in areas closer to the light source than in other areas further removed from the light source. A pattern of light extracting deformities 21 may be used to adjust for the light variances within the panel members, for example, by providing a denser concentration of light extracting deformities with increased distance from the light source 3 thereby resulting in a more uniform light output distribution from the light emitting panels.”).

			’370 patent at col. 5, ll. 17-23 (“The deformities 21 may also be used to control the output ray angle distribution of the emitted light to suit a particular application. For example, if the panel assemblies are used to provide a liquid crystal display backlight, the light output will be more efficient if the deformities 21 cause the light rays to emit from the panels at predetermined ray angles such that they will pass through the liquid crystal display with low loss.”). ’370 patent at col. 5, ll. 24-33 (“Additionally, the pattern of light extracting deformities may be used to adjust for light output variances attributed to light extractions of the panel members. The pattern of light extracting deformities 21 may be printed on the light output areas utilizing a wide spectrum of paints, inks, coatings, epoxies, or the like, ranging from glossy to opaque or both, and may employ half-tone separation techniques to vary the deformity 21 coverage. Moreover, the pattern of light extracting deformities 21 may be multiple layers or vary in index of refraction.”) ’370 patent at col. 5, ll. 34-56 (“Print patterns of light extracting deformities 21 may vary in shapes such as dots, squares, diamonds, ellipses, stars, random shapes, and the like, and are desirably 0.006 square inch per deformity/element or less. Also, print patterns that are 60 lines per inch or finer are desirably employed, thus making the deformities or shapes 21 in the print patterns nearly invisible to the human eye in a particular application thereby eliminating the detection of gradient or banding lines that are common to light extracting patterns utilizing larger elements. Additionally, the deformities may vary in shape and/or size along the length and/or width of the panel members. Also, a random placement pattern of the deformities may be utilized throughout the length and/or width of the panel members. The deformities may have shapes or a pattern with no specific angles to reduce moire or other interference effects. Examples of methods to

			create these random patterns are printing a pattern of shapes using stochastic print pattern techniques, frequency modulated half tone patterns, or random dot half tones. Moreover, the deformities may be colored in order to effect color correction in the panel members. The color of the deformities may also vary throughout the panel members, for example to provide different colors for the same or different light output areas."). '370 patent at col. 5, ln. 57 through col. 6, ln. 7 ("In addition to or in lieu of the patterns of light extracting deformities 21 shown in FIG. 4a, other light extracting deformities including prismatic surfaces, depressions or raised surfaces of various shapes using more complex shapes in a mold pattern may be molded, etched, stamped, thermoformed, hot stamped or the like into or on one or more areas of the panel member. FIGS. 4b and 4c show panel areas 22 on which prismatic surfaces 23 or depressions 24 are formed in the panel areas, whereas FIG. 4d shows prismatic or other reflective or refractive surfaces 25 formed on the exterior of the panel area. The prismatic surfaces, depressions or raised surfaces will cause a portion of the light rays contacted thereby to be emitted from the panel member. Also, the angles of the prisms, depressions or other surfaces may be varied to direct the light in different directions to produce a desired light output distribution or effect. Moreover, the reflective or refractive surfaces may have shapes or a pattern with no specific angles to reduce moire or other interference effects."). '370 patent at col. 6, ll. 15-24 ("Additionally, a pattern of light extracting deformities 21, 23, 24 and/or 25 may be provided on one or both sides of the panel member in order to change the path of the light so that the internal critical angle is exceeded and a portion of the light is emitted from one or both sides of the panel. Moreover, a transparent film, sheet or plate 27 may be attached or positioned against the side or sides of the panel member from which light is emitted using a suitable

			adhesive 28 or other method in order to produce a desired effect."). '370 patent at col. 6, ln. 53 through col. 7, ln. 3 ("FIG. 6 shows another form of light emitting panel assembly 32 in accordance with this invention including a panel member 33, one or more light sources 3, and one or more light output areas 34. In addition, the panel assembly 32 includes a tray 35 having a cavity or recess 36 in which the panel assembly 32 is received. The tray 35 may act as a back reflector as well as end edge and/or side edge reflectors for the panel 33 and side and/or back reflectors 37 for the light sources 3. Additionally, one or more secondary reflective or refractive surfaces 38 may be provided on the panel member 33 and/or tray 35 to reflect a portion of the light around one or more corners or curves in a non-rectangular shaped panel member 33. These secondary reflective/refractive surfaces 38 may be flat, angled, faceted or curved, and may be used to extract a portion of the light away from the panel member in a predetermined pattern. FIG. 6 also shows multiple light output areas 34 on the panel member that emit light from one or more light sources 3."). '370 patent at col. 7, ll. 38-54 ("Moreover, a separate cavity or recess 56 may be provided in the panel member 51 for receipt of a correspondingly shaped light transition area 57 having one or more light sources 3 embedded, bonded, cast, insert molded, epoxied, or otherwise mounted or positioned therein and a curved reflective or refractive surface 58 on the transition area 57 and/or wall of the cavity or recess 56 to redirect a portion of the light in a predetermined manner. In this way the light transition area 57 and/or panel member may be in the form of a separate insert which facilitates the easy placement of the light source in a modular manner. A reflector 58 may be placed on the reflective or refractive surface of the cavity or recess 56 or insert 57. Where the reflector 58 is placed on the reflective or refractive surface of the cavity or recess 56, the cavity or recess may act as a mold permitting transparent material from which the transition area 57 is made to be cast

			around one or more light sources 3."). '370 patent at col. 8, ll. 57-67 ("The various light emitting panel assemblies disclosed herein may be used for a great many different applications including for example LCD back lighting or lighting in general, decorative and display lighting, automotive lighting, dental lighting, phototherapy or other medical lighting, membrane switch lighting, and sporting goods and apparel lighting or the like. Also the panel assemblies may be made such that the panel members and deformities are transparent without a back reflector. This allows the panel assemblies to be used for example to front light an LCD or other display such that the display is viewed through the transparent panel members."). '370 patent at Figs. 1-15. '370 patent at claims 1, 13, 15, 27, 29, and 47.
13	**"well defined optical elements or deformities"** '194 patent, claims 1, 16, 31 **"optical elements or deformities of well defined shape"** '194 patent, claim 28	<u>Plaintiff's Construction</u> "well defined" – "distinct" "optical elements or deformities" – see individual constructions Full term – plain meaning incorporating above constructions <u>Defendants' Construction</u> This term is indefinite under 35 U.S.C. § 112(2).	<u>Plaintiff's Evidence</u> No. 2:13-cv-522, Claim Construction Memorandum and Order (ECF 101) (Aug. 26, 2014) '194 patent at Col. 4, ll. 39-55 ("A pattern of light extracting deformities or disruptions may be provided on one or both sides of the panel members or on one or more selected areas on one or both sides of the panel members, as desired. FIG. 4a schematically shows one such light surface area 20 on which a pattern of light extracting deformities or disruptions 21 is provided. As used herein, the term deformities or disruptions are used interchangeably to mean any change in the shape or geometry of the panel surface and/or coating or surface treatment that causes a portion of the light to be emitted. The pattern of light extracting deformities 21 shown in FIG. 4a includes a variable pattern which breaks up the light rays such that the internal angle of reflection of a

			portion of the light rays will be great enough to cause the light rays either to be emitted out of the panel through the side or sides on which the light extracting deformities 21 are provided or reflected back through the panel and emitted out the other side.") '194 patent at Col. 4, l. 56- Col. 5, l. 2 ("These deformities or disruptions 21 can be produced in a variety of manners, for example, by providing a painted pattern, an etched pattern, a machined pattern, a printed pattern, a hot stamped pattern, or a molded pattern or the like on selected light output areas of the panel members. An ink or printed pattern may be applied for example by pad printing, silk screening, ink jet, heat transfer film process or the like. The deformities may also be printed on a sheet or film which is used to apply the deformities to the panel member. This sheet or film may become a permanent part of the light panel assembly for example by attaching or otherwise positioning the sheet or film against one or both sides of the panel member similar to the sheet or film 27 shown in FIGS. 3 and 5 in order to produce a desired effect.") '194 patent at Col. 5, ll. 3-12 ("By varying the density, opaqueness or translucence, shape, depth, color, area, index of refraction, or type of deformities 21 on an area or areas of the panels, the light output of the panels can be controlled. The deformities or disruptions may be used to control the percent of light emitted from any area of the panels. For example, less and/or smaller size deformities 21 may be placed on panel areas where less light output is wanted. Conversely, a greater percentage of and/or larger deformities may be placed on areas of the panels where greater light output is desired.") '194 patent at Col. 5, ll. 43-65 ("Print patterns of light extracting deformities 21 may vary in shapes such as dots, squares, diamonds, ellipses, stars, random shapes, and the like, and are desirably 0.006 square inch per deformity/element or less. Also, print patterns that are

			60 lines per inch or finer are desirably employed, thus making the deformities or shapes 21 in the print patterns nearly invisible to the human eye in a particular application thereby eliminating the detection of gradient or banding lines that are common to light extracting patterns utilizing larger elements. Additionally, the deformities may vary in shape and/or size along the length and/or width of the panel members. Also, a random placement pattern of the deformities may be utilized throughout the length and/or width of the panel members. The deformities may have shapes or a pattern with no specific angles to reduce moire or other interference effects. Examples of methods to create these random patterns are printing a pattern of shapes using stochastic print pattern techniques, frequency modulated half tone patterns, or random dot half tones. Moreover, the deformities may be colored in order to effect color correction in the panel members. The color of the deformities may also vary throughout the panel members, for example to provide different colors for the same or different light output areas.") '194 patent at Col. 5, l. 66- Col. 6, l. 17 ("In addition to or in lieu of the patterns of light extracting deformities 21 shown in FIG. 4a, other light extracting deformities including prismatic surfaces, depressions or raised surfaces of various shapes using more complex shapes in a mold pattern may be molded, etched, stamped, thermoformed, hot stamped or the like into or on one or more areas of the panel member. FIGS. 4b and 4c show panel areas 22 on which prismatic surfaces 23 or depressions 24 are formed in the panel areas, whereas FIG. 4d shows prismatic or other reflective or refractive surfaces 25 formed on the exterior of the panel area. The prismatic surfaces, depressions or raised surfaces will cause a portion of the light rays contacted thereby to be emitted from the panel member. Also, the angles of the prisms, depressions or other surfaces may be varied to direct the light in different directions to produce a desired light output distribution or effect. Moreover, the reflective or refractive surfaces may have shapes or a pattern with no specific angles to reduce moire or other interference effects.")

			McGraw-Hill Dictionary of Scientific and Technical Terms (6th Ed. – 2003) ("optical element" – "a part of an optical instrument which acts upon the light passing through the instrument, such as a lens, prism, or mirror") *The Merriam-Webster Dictionary* (1998) ("well-defined" – "having clearly distinguishable limits or boundaries") *Merriam-Webster's Collegiate Dictionary* (10th Ed. - 2002) ("well-defined" - "having clearly distinguishable limits, boundaries, or features") *Webster's Third New International Dictionary* (2002) ("defined" – "clearly outlined, characterized, or delimited") Declaration of Kenneth Werner <u>Defendants' Evidence</u> The asserted claims, when read in light of the specification and the prosecution history, fails to inform, with reasonable certainty, those skilled in the art about the scope of the invention. '194 Patent, at 5:43-52; 5:67-6:17 '194 Patent, at 5:45; 6:15-16 Declaration of Robert Smith-Gillespie
14	**"pass through a liquid crystal display with low loss"** '194 patent, claims 1, 16, 28	<u>Plaintiff's Construction</u> Does not limit the claims in which it appears. <u>Defendants' Construction</u> This term is indefinite under	<u>Plaintiff's Evidence</u> No. 2:13-cv-522, Claim Construction Memorandum and Order (ECF 101) (Aug. 26, 2014) '194 patent at col. 1, ll. 19-23 ("This invention relates generally, as

	’370 patent, claims 1, 29	35 U.S.C. § 112(2).	indicated, to light emitting panel assemblies each including a transparent panel member for efficiently conducting light, and controlling the light conducted by the panel member to be emitted from one or more light output areas along the length thereof.”). ’194 patent at col. 1, ll. 24-29 (“Light emitting panel assemblies are generally known. However, the present invention relates to several different light emitting panel assembly configurations which provide for better control of the light output from the panel assemblies and for more efficient utilization of light, which results in greater light output from the panel assemblies.”). ’194 patent at col. 1, ll. 46-52 (“In accordance with another aspect of the invention, the panel assemblies may include reflective or refractive surfaces for changing the path of a portion of the light, emitted from the light source, that would not normally enter the panel members at an acceptable angle that allows the light to remain in the panel members for a longer period of time and/or increase the efficiency of the panel members.”). ’194 patent at col. 1, ll. 53-58 (“In accordance with another aspect of the invention, the light emitting panel members include a pattern of light extracting deformities or disruptions which provide a desired light output distribution from the panel members by changing the angle of refraction of a portion of the light from one or more light output areas of the panel members.”). ’194 patent at col. 2, ll. 1-6 (“The various light emitting panel assemblies of the present invention are very efficient panel assemblies that may be used to produce increased uniformity and higher light output from the panel members with lower power requirements, and allow the panel members to be made thinner and/or longer, and/or of various shapes and sizes.”).

			’194 patent at col. 2, ll. 22-24 (“FIG. 4a is an enlarged plan view of a portion of a light output area of a panel assembly showing one form of pattern of light extracting deformities on the light output area;”). ’194 patent at col. 2, ll. 25-28 (“FIGS. 4b, c and d are enlarged schematic perspective views of a portion of a light output area of a panel assembly showing other forms of light extracting deformities formed in or on the light output area;”). ’194 patent at col. 2, ln. 64 through col. 3, ln. 9 (“Referring now in detail to the drawings, and initially to FIG. 1, there is schematically shown one form of light emitting panel assembly 1 in accordance with this invention including a transparent light emitting panel 2 and one or more light sources 3 which emit light in a predetermined pattern in a light transition member or area 4 used to make the transition from the light source 3 to the light emitting panel 2, as well known in the art. The light that is transmitted by the light transition area 4 to the transparent light emitting panel 2 may be emitted along the entire length of the panel or from one or more light output areas along the length of the panel as desired to produce a desired light output distribution to fit a particular application.”). ’194 patent at col. 4, ll. 39-55 (“A pattern of light extracting deformities or disruptions may be provided on one or both sides of the panel members or on one or more selected areas on one or both sides of the panel members, as desired. FIG. 4a schematically shows one such light surface area 20 on which a pattern of light extracting deformities or disruptions 21 is provided. As used herein, the term deformities or disruptions are used interchangeably to mean any change in the shape or geometry of the panel surface and/or coating or surface treatment that causes a portion of the light to be emitted. The pattern of light extracting

			deformities 21 shown in FIG. 4a includes a variable pattern which breaks up the light rays such that the internal angle of reflection of a portion of the light rays will be great enough to cause the light rays either to be emitted out of the panel through the side or sides on which the light extracting deformities 21 are provided or reflected back through the panel and emitted out the other side."). '194 patent at col. 4, ln. 56 through col. 5, ln. 2 ("These deformities or disruptions 21 can be produced in a variety of manners, for example, by providing a painted pattern, an etched pattern, a machined pattern, a printed pattern, a hot stamped pattern, or a molded pattern or the like on selected light output areas of the panel members. An ink or printed pattern may be applied for example by pad printing, silk screening, ink jet, heat transfer film process or the like. The deformities may also be printed on a sheet or film which is used to apply the deformities to the panel member. This sheet or film may become a permanent part of the light panel assembly for example by attaching or otherwise positioning the sheet or film against one or both sides of the panel member similar to the sheet or film 27 shown in FIGS. 3 and 5 in order to produce a desired effect."). '194 patent at col. 5, ll. 3-12 ("By varying the density, opaqueness or translucence, shape, depth, color, area, index of refraction, or type of deformities 21 on an area or areas of the panels, the light output of the panels can be controlled. The deformities or disruptions may be used to control the percent of light emitted from any area of the panels. For example, less and/or smaller size deformities 21 may be placed on panel areas where less light output is wanted. Conversely, a greater percentage of and/or larger deformities may be placed on areas of the panels where greater light output is desired."). '194 patent at col. 5, ll. 13-24 ("Varying the percentages and/or size of deformities in different areas of the panel is necessary in order to

			provide a uniform light output distribution. For example, the amount of light traveling through the panels will ordinarily be greater in areas closer to the light source than in other areas further removed from the light source. A pattern of light extracting deformities 21 may be used to adjust for the light variances within the panel members, for example, by providing a denser concentration of light extracting deformities with increased distance from the light source 3 thereby resulting in a more uniform light output distribution from the light emitting panels."). '194 patent at col. 5, ll. 25-32 ("The deformities 21 may also be used to control the output ray angle distribution of the emitted light to suit a particular application. For example, if the panel assemblies are used to provide a liquid crystal display backlight, the light output will be more efficient if the deformities 21 cause the light rays to emit from the panels at predetermined ray angles such that they will pass through the liquid crystal display with low loss."). '194 patent at col. 5, ll. 33-42 ("Additionally, the pattern of light extracting deformities may be used to adjust for light output variances attributed to light extractions of the panel members. The pattern of light extracting deformities 21 may be printed on the light output areas utilizing a wide spectrum of paints, inks, coatings, epoxies, or the like, ranging from glossy to opaque or both, and may employ half-tone separation techniques to vary the deformity 21 coverage. Moreover, the pattern of light extracting deformities 21 may be multiple layers or vary in index of refraction."). '194 patent at col. 5, ln. 66 through col. 6, ln. 17 ("In addition to or in lieu of the patterns of light extracting deformities 21 shown in FIG. 4a, other light extracting deformities including prismatic surfaces, depressions or raised surfaces of various shapes using more complex shapes in a mold pattern may be molded, etched, stamped, thermoformed, hot stamped or the like into or on one or more areas of

			the panel member. FIGS. 4b and 4c show panel areas 22 on which prismatic surfaces 23 or depressions 24 are formed in the panel areas, whereas FIG. 4d shows prismatic or other reflective or refractive surfaces 25 formed on the exterior of the panel area. The prismatic surfaces, depressions or raised surfaces will cause a portion of the light rays contacted thereby to be emitted from the panel member. Also, the angles of the prisms, depressions or other surfaces may be varied to direct the light in different directions to produce a desired light output distribution or effect. Moreover, the reflective or refractive surfaces may have shapes or a pattern with no specific angles to reduce moire or other interference effects."). '194 patent at col. 6, ll. 24-33 ("Additionally, a pattern of light extracting deformities 21, 23, 24 and/or 25 may be provided on one or both sides of the panel member in order to change the path of the light so that the internal critical angle is exceeded and a portion of the light is emitted from one or both sides of the panel. Moreover, a transparent film, sheet or plate 27 may be attached or positioned against the side or sides of the panel member from which light is emitted using a suitable adhesive 28 or other method in order to produce a desired effect."). '194 patent at col. 6, ll. 34-38 ("The member 27 may be used to further improve the uniformity of the light output distribution. For example, the member 27 may be a colored film, a diffuser, or a label or display, a portion of which may be a transparent overlay that may be colored and/or have text or an image thereon."). '194 patent at col. 9, ll. 1-12 ("The various light emitting panel assemblies disclosed herein may be used for a great many different applications including for example LCD back lighting or lighting in general, decorative and display lighting, automotive lighting, dental lighting, phototherapy or other medical lighting, membrane switch lighting, and sporting goods and apparel lighting or the like. Also the

			panel assemblies may be made such that the panel members and deformities are transparent without a back reflector. This allows the panel assemblies to be used for example to front light an LCD or other display such that the display is viewed through the transparent panel members."). '194 patent at Figs. 3, 4A-4D, and 5. '194 patent at claims 1, 16, and 28. For the '370 patent, all counterpart passages and figures as identified above by Plaintiff for the '194 patent. '370 patent at Abstract ("Light emitting panel assemblies include an optical panel member having a pattern of light extracting deformities on or in one or both sides to cause light to be emitted in a predetermined output distribution."). '370 patent at claims 1, 15, and 29. *McGraw-Hill Dictionary of Scientific and Technical Terms* (6th Ed. – 2003) ("low loss" – "having a small dissipation of electric of electromagnetic power") *McGraw-Hill Dictionary of Scientific and Technical Terms* (6th Ed. – 2003) ("loss" – "power that is dissipated in a device or system without doing useful work") *American Heritage College Dictionary* (3rd Ed. - 1997) ("efficient" – "acting or producing effectively with a minimum of waste, expense, or unnecessary effort; exhibiting a high ratio of output to input") Declaration of Kenneth Werner

			Defendants' Evidence The asserted claims, when read in light of the specification and the prosecution history, fails to inform, with reasonable certainty, those skilled in the art about the scope of the invention. '370 Prosecution history Original claims Office Action dated October 15, 2009 Response dated January 15, 2009 March 23, 2009 Notice of Allowance '194 Patent, at 5:25-32; '370 Patent, at 5:17-23 '370 Patent, at 9:9-26; 11:5-23 '194 Patent, at 6:51:54 '194 Patent, at 1:25-29 U.S. Patent No. 8,828,488, 6:33-35, 3:46-49, 3:55-60 U.S. Patent No. 5,303,322, 8:21-36 Declaration of Robert Smith-Gillespie
15	**"in close proximity"** '177 patent / Claim 7	Plaintiff's Construction plain meaning. Defendants' Construction This term is indefinite under 35 U.S.C. § 112(2).	Plaintiff's Evidence '177 patent at col. 1, ll. 19-23 ("This invention relates generally, as indicated, to light emitting panel assemblies each including a transparent panel member for efficiently conducting light, and controlling the light conducted by the panel member to be emitted from one or more light output areas along the length thereof.") '177 patent at col. 1, ll. 24-29 ("Light emitting panel assemblies are generally known. However, the present invention relates to several different light emitting panel assembly configurations Which provide for better control of the light output from the panel assemblies and for more efficient utilization of light, Which results in greater light output

			from the panel assemblies.") '177 patent at col. 1, ll. 33-37 ("In accordance With one aspect of the invention, the light emitting panel assemblies include a light emitting panel member having a light transition area in Which at least one light source is suitably mounted for transmission of light to the light input surface of the panel member.") '177 patent at col. 1, ll. 38-44 ("In accordance With another aspect of the invention, the light source is desirably embedded, potted or bonded to the light transition area to eliminate any air gaps, decrease surface rejections and/or eliminate any lens effect between the light source and light transition area, thereby reducing light loss and increasing the light output from the panel assembly.") '177 patent at col. 1, ll. 45-52 ("In accordance With another aspect of the invention, the panel assemblies may include reflective or refractive surfaces for changing the path of a portion of the light, emitted from the light source, that Would not normally enter the panel members at an acceptable angle that allows the light to remain in the panel members for a longer period of time and/or increase the efficiency of the panel members.") '177 patent at col. 2, ll. 1-6 ("The various light emitting panel assemblies of the present invention are very efficient panel assemblies that may be used to produce increased uniformity and higher light output from the panel members With lower power requirements, and allow the panel members to be made thinner and/or longer, and/or of various shapes and sizes.") '177 patent at col. 2, ll. 7-14 ("To the accomplishment of the foregoing and related ends, the invention then comprises the features hereinafter fully described and particularly pointed out in the claims, the following

			description and the annexed drawings setting forth in detail certain illustrative embodiments of the invention, these being indicative, however, of but several of the various ways in which the principles of the invention may be employed.") '177 patent at col. 2, ln. 64 through col. 3, ln. 9 ("Referring now in detail to the drawings, and initially to FIG. 1, there is schematically shown one form of light emitting panel assembly 1 in accordance with this invention including a transparent light emitting panel 2 and one or more light sources 3 which emit light in a predetermined pattern in a light transition member or area 4 used to make the transition from the light source 3 to the light emitting panel 2, as well known in the art. The light that is transmitted by the light transition area 4 to the transparent light emitting panel 2 may be emitted along the entire length of the panel or from one or more light output areas along the length of the panel as desired to produce a desired light output distribution to ?t a particular application.") '177 patent at col. 3, ll. 10-22 ("In FIG. 1 the light transition area 4 is shown as an integral extension of one end of the light emitting panel 2 and as being generally rectangular in shape. However, the light transition area may be of other shapes suitable for embedding, potting, bonding or otherwise mounting the light source. Also, reflective or refractive surfaces may be provided to increase efficiency. Moreover, the light transition area 4 may be a separate piece suitably attached to the light input surface 13 of the panel member if desired. Also, the sides of the light transition area may be curved to more efficiently reflect or refract a portion of the light emitted from the light source through the light emitting panel at an acceptable angle.") '177 patent at col. 3, ll. 23-37 ("FIG. 2 shows another form of light emitting panel assembly 5 in accordance With this invention including a panel light transition area 6 at one end of the light emitting panel 7 With

			sides 8, 9 around and behind the light source 3 shaped to more efficiently reflect and/or refract and focus the light emitted from the light source 3 that impinges on these surfaces back through the light transition area 6 at an acceptable angle for entering the light input surface 18 at one end of the light emitting panel 7. Also, a suitable reflective material or coating 10 may be provided on the portions of the sides of the light transition areas of the panel assemblies of FIGS. 1 and 2 on Which a portion of the light impinges for maximizing the amount of light or otherwise changing the light that is reflected back through the light transition areas and into the light emitting panels.") '177 patent at col. 3, ll. 38-44 ("The panel assemblies shown in FIGS. 1 and 2 include a single light source 3, whereas FIG. 3 shows another light emitting panel assembly 11 in accordance with this invention including two light sources 3. Of course, it will be appreciated that the panel assemblies of the present invention may be provided with any number of light sources as desired, depending on the particular application.") '177 patent at col. 3, ll. 45-56 ("The panel assembly 11 of FIG. 3 includes a light transition area 12 at one end of the light emitting panel 14 having reflective and/or refractive surfaces 15 around and behind each light source 3. These surfaces 15 may be appropriately shaped including for example curved, straight and/or faceted surfaces, and if desired, suitable reflective materials or coatings may be provided on portions of these surfaces to more efficiently reflect and/or refract and focus a portion of the light emitted for example from an incandescent light source which emits light in a 360° pattern through the light transition areas 12 into the light input surface 19 of the light emitting panel 14.") '177 patent at col. 3, ln. 57 through col. 4, ln. 9 ("The light sources 3 may be mechanically held in any suitable manner in slots, cavities or

			openings 16 machined, molded or otherwise formed in the light transition areas of the panel assemblies. However, preferably the light sources 3 are embedded, potted or bonded in the light transition areas in order to eliminate any air gaps or air interface surfaces between the light sources and surrounding light transition areas, thereby reducing light loss and increasing the light output emitted by the light emitting panels. Such mounting of the light sources may be accomplished, for example, by bonding the light sources 3 in the slots, cavities or openings 16 in the light transition areas using a sufficient quantity of a suitable embedding, potting or bonding material 17. The slots, cavities or openings 16 may be on the top, bottom, sides or back of the light transition areas. Bonding can also be accomplished by a variety of methods that do not incorporate extra material, for example, thermal bonding, heat staking, ultrasonic or plastic welding or the like. Other methods of bonding include insert molding and casting around the light source(s).") '177 patent at col. 5, ln. 62 through col. 7, ln. 12 ("FIG. 6 shows another form of light emitting panel assembly 32 in accordance with this invention including a panel member 33, one or more light sources 3, and one or more light output areas 34. In addition, the panel assembly 32 includes a tray 35 having a cavity or recess 36 in which the panel assembly 32 is received. The tray 35 may act as a back reflector as well as end edge and/or side edge reflectors for the panel 33 and side and/or back reflectors 37 for the light sources 3. Additionally, one or more secondary reflective or refractive surfaces 38 may be provided on the panel member 33 and/or tray 35 to reflect a portion of the light around one or more corners or curves in a non-rectangular shaped panel member 33. These secondary reflective/refractive surfaces 38 may be flat, angled, faceted or curved, and may be used to extract a portion of the light away from the panel member in a predetermined pattern. FIG. 6 also shows multiple light output areas 34 on the panel member that emit light from one or more light sources 3.").

			’177 patent at col. 8, ll. 37-49 (“FIG. 14 schematically illustrates still another form of light emitting panel assembly 80 in accordance With this invention including a light emitting panel 81 and one or more light sources 3 positioned, embedded, potted, bonded or other Wise mounted in a light transition area 82 that is at an angle relative to the panel member 81 to permit more efficient use of space. An angled or curved reflective or refractive surface 83 is provided at the junction of the panel member 81 With the transition area 82 in order to reflect/refract light from the light source 3 into the body of the panel member 81 for emission of light from one or more light emitting areas 84 along the length of the panel member.”) ’177 patent at col. 8, ll. 50-67 (“FIG. 15 schematically illustrates still another form of light emitting panel assembly 90 in accordance with this invention including a light transition area 91 at one or both ends of a light emitting panel member 92 containing a slot 93 for sliding receipt of an LED or other suitable light source 3. Preferably the slot 93 extends into the transition area 91 from the back edge 94, whereby the light source 3 may be slid and/or snapped in place in the slot from the back, thus allowing the transition area to be made shorter and/or thinner. The light source 3 may be provided With Wings, tabs or other surfaces 95 for engagement in correspondingly shaped recesses or grooves 96 or the like in the transition area 91 for locating and, if desired, securing the light source in place. Also, the light source 3 may be embedded, potted, bonded or otherwise secured within the slot 93 in the light transition area 91 of the panel member 92. Light from a secondary light source 97 may be projected through the panel member 92 for indication or some other effect. ’177 patent at col. 9, ll. 1-12 (“The various light emitting panel assemblies disclosed herein may be used for a great many different applications including for example LCD back lighting or lighting in general, decorative and display lighting, automotive lighting, dental

			lighting, phototherapy or other medical lighting, membrane switch lighting, and sporting goods and apparel lighting or the like. Also the panel assemblies may be made such that the panel members and deformities are transparent without a back reflector. This allows the panel assemblies to be used for example to front light an LCD or other display such that the display is viewed through the transparent panel members.") '177 patent at Figs. 1, 2, 4A, 6, 7, 9, 11, 12, 14, 15. Declaration of Kenneth Werner <u>Defendants' Evidence</u> The asserted claims, when read in light of the specification and the prosecution history, fails to inform, with reasonable certainty, those skilled in the art about the scope of the invention. '177 Patent, at 6:62-7:12 '177 Patent, at 1:46-52 '177 Patent, at 3:10-22 '177 Patent, at 3:45-56 '177 Patent, at 7:40-65 '177 Patent, at 8:28-36. '177 Patent 7:3-7 '177 Patent, at 5:66-6:17 '177 Patent at 8:37-48 '177 Patent, at 7:5-7 Declaration of Robert Smith-Gillespie
16	**"optical elements"** '194 patent / Claims 1, 16, 31	<u>Plaintiff's Construction</u> plain meaning <u>Defendants' Construction</u>	<u>Plaintiff's Evidence</u> No. 2:13-cv-522, Claim Construction Memorandum and Order (ECF 101) (Aug. 26, 2014)

	’370 patent / Claims 13, 47	This term is indefinite under 35 U.S.C. § 112(2).	’194 patent at Col. 4, ll. 39-55 (“A pattern of light extracting deformities or disruptions may be provided on one or both sides of the panel members or on one or more selected areas on one or both sides of the panel members, as desired. FIG. 4a schematically shows one such light surface area 20 on which a pattern of light extracting deformities or disruptions 21 is provided. As used herein, the term deformities or disruptions are used interchangeably to mean any change in the shape or geometry of the panel surface and/or coating or surface treatment that causes a portion of the light to be emitted. The pattern of light extracting deformities 21 shown in FIG. 4a includes a variable pattern which breaks up the light rays such that the internal angle of reflection of a portion of the light rays will be great enough to cause the light rays either to be emitted out of the panel through the side or sides on which the light extracting deformities 21 are provided or reflected back through the panel and emitted out the other side.”) ’194 patent at Col. 4, l. 56- Col. 5, l. 2 (“These deformities or disruptions 21 can be produced in a variety of manners, for example, by providing a painted pattern, an etched pattern, a machined pattern, a printed pattern, a hot stamped pattern, or a molded pattern or the like on selected light output areas of the panel members. An ink or printed pattern may be applied for example by pad printing, silk screening, ink jet, heat transfer film process or the like. The deformities may also be printed on a sheet or film which is used to apply the deformities to the panel member. This sheet or film may become a permanent part of the light panel assembly for example by attaching or otherwise positioning the sheet or film against one or both sides of the panel member similar to the sheet or film 27 shown in FIGS. 3 and 5 in order to produce a desired effect.”) ’194 patent at Col. 5, ll. 3-12 (“By varying the density, opaqueness or translucence, shape, depth, color, area, index of refraction, or type of

			deformities 21 on an area or areas of the panels, the light output of the panels can be controlled. The deformities or disruptions may be used to control the percent of light emitted from any area of the panels. For example, less and/or smaller size deformities 21 may be placed on panel areas where less light output is wanted. Conversely, a greater percentage of and/or larger deformities may be placed on areas of the panels where greater light output is desired.") '194 patent at Col. 5, ll. 43-65 ("Print patterns of light extracting deformities 21 may vary in shapes such as dots, squares, diamonds, ellipses, stars, random shapes, and the like, and are desirably 0.006 square inch per deformity/element or less. Also, print patterns that are 60 lines per inch or finer are desirably employed, thus making the deformities or shapes 21 in the print patterns nearly invisible to the human eye in a particular application thereby eliminating the detection of gradient or banding lines that are common to light extracting patterns utilizing larger elements. Additionally, the deformities may vary in shape and/or size along the length and/or width of the panel members. Also, a random placement pattern of the deformities may be utilized throughout the length and/or width of the panel members. The deformities may have shapes or a pattern with no specific angles to reduce moire or other interference effects. Examples of methods to create these random patterns are printing a pattern of shapes using stochastic print pattern techniques, frequency modulated half tone patterns, or random dot half tones. Moreover, the deformities may be colored in order to effect color correction in the panel members. The color of the deformities may also vary throughout the panel members, for example to provide different colors for the same or different light output areas.") '194 patent at Col. 5, l. 66- Col. 6, l. 17 ("In addition to or in lieu of the patterns of light extracting deformities 21 shown in FIG. 4a, other light extracting deformities including prismatic surfaces, depressions or raised

			surfaces of various shapes using more complex shapes in a mold pattern may be molded, etched, stamped, thermoformed, hot stamped or the like into or on one or more areas of the panel member. FIGS. 4b and 4c show panel areas 22 on which prismatic surfaces 23 or depressions 24 are formed in the panel areas, whereas FIG. 4d shows prismatic or other reflective or refractive surfaces 25 formed on the exterior of the panel area. The prismatic surfaces, depressions or raised surfaces will cause a portion of the light rays contacted thereby to be emitted from the panel member. Also, the angles of the prisms, depressions or other surfaces may be varied to direct the light in different directions to produce a desired light output distribution or effect. Moreover, the reflective or refractive surfaces may have shapes or a pattern with no specific angles to reduce moire or other interference effects.") '194 patent at Figs. 4a-4b. For the '370 patent, all counterpart passages and figures as identified above by Plaintiff for the '194 patent. '370 patent at claims 13 and 47. *McGraw-Hill Dictionary of Scientific and Technical Terms* (6th Ed. – 2003) ("optical element" – "a part of an optical instrument which acts upon the light passing through the instrument, such as a lens, prism, or mirror") Declaration of Kenneth Werner <u>Defendants' Evidence</u> The asserted claims, when read in light of the specification and the prosecution history, fails to inform, with reasonable certainty, those skilled in the art about the scope of the invention.

			’194 Patent, at Abstract Declaration of Robert Smith-Gillespie
17	**“facilitate better mixing of light rays within the cavity or recess”** ’177 patent / Claim 15	Plaintiff’s Construction plain meaning Defendants’ Construction This term is indefinite under 35 U.S.C. § 112(2).	Plaintiff’s Evidence ’177 patent at Abstract (“Light emitting assemblies include a tray that forms a cavity or recess containing one or more light sources. A sheet, film or substrate is positioned over the cavity or recess for controlling the light emitted from the assembly. The tray acts as a back, side or edge reflector, and has one or more secondary reflective or refractive surfaces.” ’177 patent at col. 1, ll. 19-23 (“This invention relates generally, as indicated, to light emitting panel assemblies each including a transparent panel member for efficiently conducting light, and controlling the light conducted by the panel member to be emitted from one or more light output areas along the length thereof.”) ’177 patent at col. 1, ll. 24-29 (“Light emitting panel assemblies are generally known. However, the present invention relates to several different light emitting panel assembly configurations which provide for better control of the light output from the panel assemblies and for more efficient utilization of light, which results in greater light output from the panel assemblies.”) ’177 patent at col.1, ll. 46-52 (“In accordance with another aspect of the invention, the panel assemblies may include reflective or refractive surfaces for changing the path of a portion of the light, emitted from the light source, that would not normally enter the panel members at an acceptable angle that allows the light to remain in the panel members for a longer period of time and/or increase the efficiency of the panel members.”)

			’177 patent at col. 2, ll. 1-6 (“The various light emitting panel assemblies of the present invention are very efficient panel assemblies that may be used to produce increased uniformity and higher light output from the panel members with lower power requirements, and allow the panel members to be made thinner and/or longer, and/or of various shapes and sizes.”) ’177 patent at col. 2, ll. 7-14 (“To the accomplishment of the foregoing and related ends, the invention then comprises the features hereinafter fully described and particularly pointed out in the claims, the following description and the annexed drawings setting forth in detail certain illustrative embodiments of the invention, these being indicative, however, of but several of the various ways in which the principles of the invention may be employed.”) ’177 patent at col. 2, ln. 64 through col. 3, ln. 9 (“Referring now in detail to the drawings, and initially to FIG. 1, there is schematically shown one form of light emitting panel assembly 1 in accordance with this invention including a transparent light emitting panel 2 and one or more light sources 3which emit light in a predetermined pattern in a light transition member or area 4 used to make the transition from the light source 3 to the light emitting panel 2, as well known in the art. The light that is transmitted by the light transition area 4 to the transparent light emitting panel 2 may be emitted along the entire length of the panel or from one or more light output areas along the length of the panel as desired to produce a desired light output distribution to fit a particular application.”) ’177 patent at col. 3, ll. 15-16 (“Also, reflective or refractive surfaces may be provided to increase efficiency.”) ’177 patent at col. 6, ln. 62 through col. 7, ln. 12 (“FIG. 6 shows another form of light emitting panel assembly 32 in accordance with this

			invention including a panel member33, one or more light sources 3, and one or more light output areas 34. In addition, the panel assembly 32 includes a tray 35having a cavity or recess 36 in which the panel assembly 32 is received. The tray 35 may act as a back reflector as well as end edge and/or side edge reflectors for the panel 33 and side and/or back reflectors 37 for the light sources 3. Additionally, one or more secondary reflective or refractive surfaces 38 may be provided on the panel member 33 and/or tray 35 to reflect a portion of the light around one or more corners or curves in a non-rectangular shaped panel member 33. These secondary reflective/refractive surfaces 38 may be flat, angled, faceted or curved, and may be used to extract a portion of the light away from the panel member in a predetermined pattern. FIG. 6 also shows multiple light output areas 34 on the panel member that emit light from one or more light sources 3.") '177 patent at col. 7, ll. 13-31 ("FIG. 7 is a schematic illustration of still another form of light emitting panel assembly 40 in accordance with this invention including a panel member 41 having one or more light output areas 42 and one or more light transition areas (mixing areas) 43 containing a plurality of light sources 3 at one or both ends of the panel. Each transition area mixes the light from one or more light sources having different colors and/or intensities. In this particular embodiment, each of the light sources 3 desirably employs three colored LEDs (red, blue, green) in each transition mixing area 43 so that the light from the three LEDs can be mixed to produce a desired light output color that will be emitted from the light output area 42. Alternatively, each light source may be a single LED having multiple colored chips bonded to the lead film. Also, two colored LEDs or a single LED having two colored chips may be used for a particular application. By varying the intensities of the individual respective LEDs, virtually any colored light output or white light distribution can be achieved.”).

			’177 patent at col. 7, ll. 48-65 (“Moreover, a separate cavity or recess 56 may be provided in the panel member 51 for receipt of a correspondingly shaped light transition area 57 having one or more light sources 3 embedded, bonded, cast, insert molded, epoxied, or otherwise mounted or positioned therein and a curved reflective or refractive surface 58 on the transition area 57 and/or wall of the cavity or recess 56 to redirect a portion of the light in a predetermined manner. In this way the light transition area 57 and/or panel member may be in the form of a separate insert which facilitates the easy placement of the light source in a modular manner. A reflector 58 may be placed on the reflective or refractive surface of the cavity or recess 56 or insert 57. Where the reflector 58 is placed on the reflective or refractive surface of the cavity or recess 56, the cavity or recess may act as a mold permitting transparent material from which the transition area 57 is made to be cast around one or more light sources 3.”) ’177 patent at col. 9, ll. 1-12 (“The various light emitting panel assemblies disclosed herein may be used for a great many different applications including for example LCD back lighting or lighting in general, decorative and display lighting, automotive lighting, dental lighting, phototherapy or other medical lighting, membrane switch lighting, and sporting goods and apparel lighting or the like. Also the panel assemblies may be made such that the panel members and deformities are transparent without a back reflector. This allows the panel assemblies to be used for example to front light an LCD or other display such that the display is viewed through the transparent panel members.”) ’177 patent at col. 9, ll. 13-19 (“Although the invention has been shown and described with respect to certain preferred embodiments, it is obvious that equivalent alterations and modifications will occur to others skilled in the art upon the reading and understanding of the specification. The present invention includes all such equivalent

			alterations and modifications, and is limited only by the scope of the claims.") '177 patent at Figs. 2, 6, 9, 12, and 13. Declaration of Kenneth Werner <u>Defendants' Evidence</u> The asserted claims, when read in light of the specification and the prosecution history, fails to inform, with reasonable certainty, those skilled in the art about the scope of the invention. '177 Patent, at 8:12-16 '177 Patent, at 1:63-67 '177 Patent, at 7:18-25 '177 Patent, at 8:12-16 Fig. 12 Declaration of Robert Smith-Gillespie
18	**"more in the width direction"** '816 patent / Claim 1	<u>Plaintiff's Construction</u> plain meaning <u>Defendants' Construction</u> This term is indefinite under 35 U.S.C. § 112(2).	<u>Plaintiff's Evidence</u> Declaration of Kenneth Werner '816 patent at Abstract ("A light emitting assembly comprises a light source, a light emitting panel member having an input edge that receives light from the light source, and end edge and side edge reflectors. The panel member is received in a cavity or recess of a tray or housing. An additional component overlies the panel member. Light extracting deformities on or in a surface of the panel member cause light to be emitted from the panel member.") '816 patent col. 1, ll. 28-22 ("This invention relates generally, as indicated, to light emitting panel assemblies each including a

			transparent panel member for efficiently conducting light, and controlling the light conducted by the panel member to be emitted from one or more light output areas along the length thereof.") '816 patent col. 1, ll. 33-38 ("Light emitting panel assemblies are generally known. However, the present invention relates to several different light emitting panel assembly configurations which provide for better control of the light output from the panel assemblies and for more efficient utilization of light, which results in greater light output from the panel assemblies. ") '816 patent col. 1, ll. 53-59 ("In accordance with another aspect of the invention, the panel assemblies may include reflective or refractive surfaces for changing the path of a portion of the light, emitted from the light source, that would not normally enter the panel members at an acceptable angle that allows the light to remain in the panel members for a longer period of time and/or increase the efficiency of the panel members.") '816 patent col. 2, ll. 8-13 ("The various light emitting panel assemblies of the present invention are very efficient panel assemblies that may be used to produce increased uniformity and higher light output from the panel members with lower power requirements, and allow the panel members to be made thinner and/or longer, and/or of various shapes and sizes.") '816 patent col. 2, ll. 13-19("To the accomplishment of the foregoing and related ends, the invention then comprises the features hereinafter fully described and particularly pointed out in the claims, the following description and the annexed drawings setting forth in detail certain illustrative embodiments of the invention, these being indicative, however, of but several of the various ways in which the principles of the invention may be employed.")

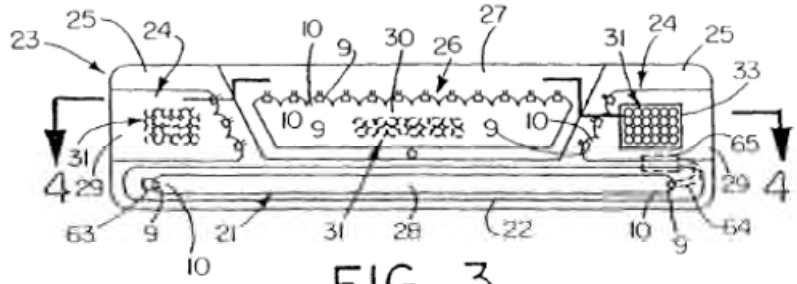
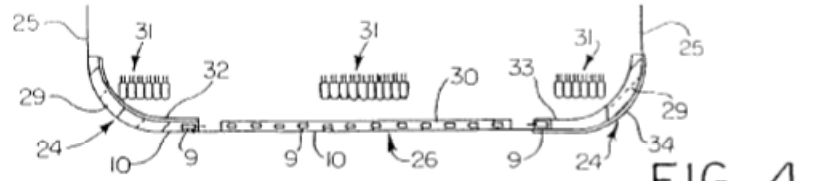
			’816 patent col. 2, ln. 66 through col. 3, ln. 11 (“Referring now in detail to the drawings, and initially to FIG. 1, there is schematically shown one form of light emitting panel assembly 1 in accordance with this invention including a transparent light emitting panel 2 and one or more light sources 3 which emit light in a predetermined pattern in a light transition member or area 4 used to make the transition from the light source 3 to the light emitting panel 2, as well known in the art. The light that is transmitted by the light transition area 4 to the transparent light emitting panel 2 may be emitted along the entire length of the panel or from one or more light output areas along the length of the panel as desired to produce a desired light output distribution to fit a particular application.”) ’816 patent col. 3, ll. 39-45 (“The panel assemblies shown in FIGS. 1 and 2 include a single light source 3, whereas FIG. 3 shows another light emitting panel assembly 11 in accordance with this invention including two light sources 3. Of course, it will be appreciated that the panel assemblies of the present invention may be provided with any number of light sources as desired, depending on the particular application.”) ’816 patent col. 3, ll. 46-57 (“The panel assembly 11 of FIG. 3 includes a light transition area 12 at one end of the light emitting panel 14 having reflective and/or refractive surfaces 15 around and behind each light source 3. These surfaces 15 may be appropriately shaped including for example curved, straight and/or faceted surfaces, and if desired, suitable reflective materials or coatings may be provided on portions of these surfaces to more efficiently reflect and/or refract and focus a portion of the light emitted for example from an incandescent light source which emits light in a 360° pattern through the light transition areas 12 into the light input surface 19 of the light emitting panel 14.”)

			’816 patent col. 4, ll. 20-39 (“Each light source 3 may also be of any suitable type including, for example, any of the types disclosed in U.S. Pat. Nos. 4,897,771 and 5,005,108, assigned to the same assignee as the present application, the entire disclosures of which are incorporated herein by reference. In particular, the light sources 3 may be an arc lamp, an incandescent bulb which also may be colored, filtered or painted, a lens end bulb, a line light, a halogen lamp, a light emitting diode (LED), a chip from an LED, a neon bulb, a fluorescent tube, a fiber optic light pipe transmitting from a remote source, a laser or laser diode, or any other suitable light source. Additionally, the light sources 3 may be a multiple colored LED, or a combination of multiple colored radiation sources in order to provide a desired colored or white light output distribution. For example, a plurality of colored lights such as LEDs of different colors (red, blue, green) or a single LED with multiple colored chips may be employed to create white light or any other colored light output distribution by varying the intensities of each individual colored light.”) ’816 patent col. 5, ll. 14-25 (“Varying the percentages and/or size of deformities in different areas of the panel is necessary in order to provide a uniform light output distribution. For example, the amount of light traveling through the panels will ordinarily be greater in areas closer to the light source than in other areas further removed from the light source. A pattern of light extracting deformities 21 may be used to adjust for the light variances within the panel members, for example, by providing a denser concentration of light extracting deformities with increased distance from the light source 3 thereby resulting in a more uniform light output distribution from the light emitting panels.”). ’816 patent col. 8, ll. 24-32 (“Providing one or more transition areas at one or both ends of the panel member of any desired dimension to accommodate one or more light sources, with reflective and/or refractive surfaces on the transition areas for redirecting the light rays

			into the panel member at relatively low angles allows the light emitting panel member to be made much longer and thinner than would otherwise be possible. For example the panel members of the present invention may be made very thin, i.e., 0.125 inch thick or less.") '816 patent col. 8, ll. 33-44 ("FIG. 14 schematically illustrates still another form of light emitting panel assembly 80 in accordance with this invention including a light emitting panel 81 and one or more light sources 3 positioned, embedded, potted, bonded or otherwise mounted in a light transition area 82 that is at an angle relative to the panel member 81 to permit more efficient use of space. An angled or curved reflective or refractive surface 83 is provided at the junction of the panel member 81 with the transition area 82 in order to reflect/refract light from the light source 3 into the body of the panel member 81 for emission of light from one or more light emitting areas 84 along the length of the panel member.") '816 patent col. 8, ll. 45-62 ("FIG. 15 schematically illustrates still another form of light emitting panel assembly 90 in accordance with this invention including a light transition area 91 at one or both ends of a light emitting panel member 92 containing a slot 93 for sliding receipt of an LED or other suitable light source 3. Preferably the slot 93 extends into the transition area 91 from the back edge 94, whereby the light source 3 may be slid and/or snapped in place in the slot from the back, thus allowing the transition area to be made shorter and/or thinner. The light source 3 may be provided with wings, tabs or other surfaces 95 for engagement in correspondingly shaped recesses or grooves 96 or the like in the transition area 91 for locating and, if desired, securing the light source in place. Also, the light source 3 may be embedded, potted, bonded or otherwise secured within the slot 93 in the light transition area 91 of the panel member 92. Light from a secondary light source 97 may be projected through the panel member 92 for indication or some other effect.")

			’816 patent col. 9, ll. 7-13 (“Although the invention has been shown and described with respect to certain preferred embodiments, it is obvious that equivalent alterations and modifications will occur to others skilled in the art upon the reading and understanding of the specification. The present invention includes all such equivalent alterations and modifications, and is limited only by the scope of the claims.”) ’816 patent Figures 1, 2, 7, 10, 11, and 15. U.S. Patent No. 4,897,771 (the “’771 patent”) at col. 7, ll. 40-53 (“In still another form of reflector and light system 38 shown in FIG. 10, the collecting reflector 39 is elongated in the transverse plane to accommodate a line filament lamp 40 located substantially at the focus F of the collecting reflector which extends substantially the full width thereof. Also, the back reflector 41 may be a flat rectangular mirror whose focus is outside a long narrow optical window 42 extending substantially the full width of the smaller open end 43 of the collecting reflector. Such a reflector and light system 38 may be used in any application where a highly efficient uniform line of light is desired, such as in photocopy machines, or for illuminating ribbon fiber optic cables or reading identification cards and the like.”). ’771 Patent at Fig. 10. U.S. Patent No. 5,005,108 (the “’108 patent”) at col. 1, ll. 43-48 (“In still another form of the invention, the panel member comprises a prismatic film having prism ridges running generally parallel to each other, with deformities along the tops of the prism ridges to cause light to be emitted. Also, diffuser surfaces, which may vary in depth and/or width, may be formed along the length of the prismatic surfaces.”). ’108 patent col. 3, ln. 55 through col. 4, ln. 2 (“Another light emitting

			panel 24 in accordance with this invention is schematically shown in FIG. 2 and comprises a thin light conducting ribbon or film 25 bent into a wave form of predetermined pattern. Although the dimensions of the panel 24 may vary, as an example, the panel 24 may be approximately 0.020 inch thick and have an overall height of approximately 0.040 inch, and be of any desired width or length depending on the particular application. Such a panel 24 may be made in any suitable manner, for example, by vacuum forming or injection molding. During the forming operation, the ribbon or film 25 is bent in a predetermined pattern, with the number of bends 26 per unit length, the effective bend radius, the panel thickness, the index of refraction ratio, and the internal ray distribution determining the light output and efficiency of the panel."). '108 patent col. 4, ln. 57 through col. 5, ln. 5 ("Alternatively, diffuser surfaces 46 may be formed along the top edges 47 of the prismatic surfaces 48 of a prismatic film light emitting panel 49 as schematically shown in FIG. 6. These diffuser surfaces 46 may vary in depth and/or width along the length of the panel 49, and may comprise a roughened surface, a lenticular surface, or a prismatic surface or the like that consists of multiple surface deformities. A roughened surface, for example, may be produced by grinding, sanding, laser cutting or milling. Also, both of the light emitting panels 40 and 49 shown in FIGS. 5 and 6 may have prismatic surfaces on both the top and bottom surfaces rather than on just one surface as shown, and one or the other of the top or bottom surface may be provided with a back reflector similar to the back reflector 34 shown in FIG. 4 to redirect emitted light back through the panel toward a particular application."). '108 Patent at Figs. 1-7. '108 Patent at claims 1, 2. Any non-overlapping citations to the '108 patent in the "greater cross-

			sectional width than thickness" term below. <u>Defendants' Evidence</u> The asserted claims, when read in light of the specification and the prosecution history, fails to inform, with reasonable certainty, those skilled in the art about the scope of the invention. '816 Patent, at 5:52-55 1:53-56, Figs. 1, 2, 3, 7, 11, 12, 13 & 14 Declaration of Robert Smith-Gillespie
19	**"greater cross-sectional width than thickness"** '563 patent / Claims 1, 5, 11, 22	<u>Plaintiff's Construction</u> plain meaning <u>Defendants' Construction</u> This term is indefinite under 35 U.S.C. § 112(2).	<u>Plaintiff's Evidence</u> Declaration of Kenneth Werner '563 patent at Figs. 3-4, 9-10, 20-22  FIG. 3  FIG. 4

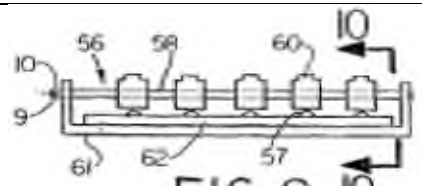


FIG. 9

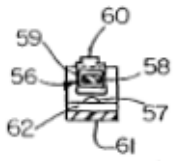


FIG. 10

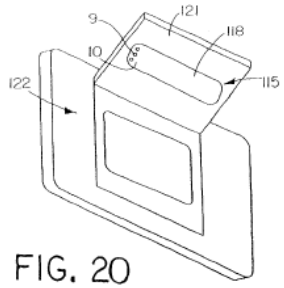


FIG. 20

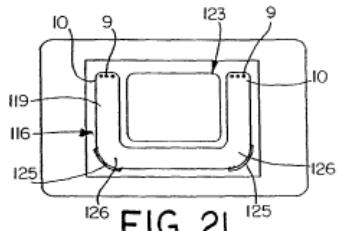


FIG. 21

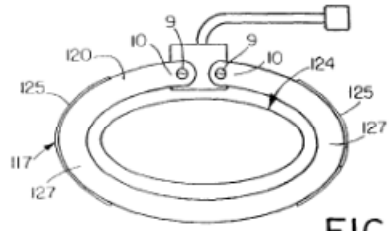


FIG. 22

’563 patent at 5:12-16:

“The light sources may be of any suitable type including, for example, any of the types disclosed in U.S. Pat. Nos. 4,897,771 and 5,005,108, assigned to the same assignee as the present application, the entire disclosures of which are incorporated herein by reference.”

’563 patent at 9:3-5:

“These panel members may have a relatively thin, low profile, for example, less than one quarter inch thick, so as not to take up much space.”

			’563 patent at 11:2-7: “The height of the slots 59 through the push buttons 60 is greater than the thickness of the panel member 58 whereby the push buttons will float on the panel member, thus allowing the push buttons to be pressed into contact with the respective dome switches on the printed circuit to activate appropriate circuitry.” ’563 patent at 12:57-62: “Such panel members 118, 119 and 120 have a relatively thin, low profile, for example less than one quarter inch thick, with one or more light sources 9 and light transition regions 10 at one or both ends of the panel members to produce a uniform diffuse, shadowless light around the vanity mirror.” ‘563 patent claims 1, 5, 11, 22 U.S. Pat. 5,005, 108 Figs. 1-17, 21-22 (not reproduced here in interests of space) U.S. Pat. 5,005,108 Abstract: “Thin panel illuminator includes a solid transparent panel member having one or more deformed output regions which cause light entering the panel along an input edge thereof to be emitted along the length of the panel.” U.S. Pat. 5,005,108 at 1:5-9: “This invention relates generally, as indicated, to a thin panel illuminator including a solid transparent panel member for conducting light and extractor means for causing light conducted by the panel member to be emitted along the length thereof.” U.S. Pat. 5,005,108 at 1:20-37: “In one form of the invention disclosed herein, the panel illuminator

			includes a light emitting panel member made of a thin light conducting ribbon or film bent, cast or formed into a predetermined pattern to cause light conducted thereby to be emitted along the length thereof. The effective radius of the bends, the number of bends per unit length, the panel thickness, the index of refraction ratio, and the internal ray distribution may be controlled to control the panel light output and efficiency. "In another form of the invention, the panel member comprises a solid transparent wave guide having a prismatic surface on one side to cause the light rays entering the wave guide through an input surface (end edge) to exceed the internal critical angle and be emitted. The size, shape and depth of the surface deformities may be varied along the length of the panel to produce a desired light output distribution." U.S. Pat. 5,005,108 at 2:51-54: "FIG. 15 is a top plan view of one form of transition device in accordance with this invention for converting an easily focused cross-sectional shape of light to the shape of a panel input surface." U.S. Pat. 5,005,108 at 3:4-8: "The light that is transmitted from the light source 3 to the light emitting panel 2 may be emitted along the length of the panel as desired to produce a desired light output distribution to fit a particular application." U.S. Pat. 5,005,108 at 3:46-48: "Also, such disruptions 16 may vary in depth and shape along the length of the panel 2 to produce a desired light output distribution." U.S. Pat. 5,005,108 at 3:55 – 4:2: "Another light emitting panel 24 in accordance with this invention is schematically shown in FIG. 2 and comprises a thin light conducting ribbon or film 25 bent into a wave form of predetermined pattern.

			Although the dimensions of the panel 24 may vary, as an example, the panel 24 may be approximately 0.020 inch thick and have an overall height of approximately 0.040 inch, and be of any desired width or length depending on the particular application. Such a panel 24 may be made in any suitable manner, for example, by vacuum forming or injection molding. During the forming operation, the ribbon or film 25 is bent in a predetermined pattern, with the number of bends 26 per unit length, the effective bend radius, the panel thickness, the index of refraction ratio, and the internal ray distribution determining the light output and efficiency of the panel." U.S. Pat. 5,005,108 at 4:35-37: "The angles and/or depth of these prismatic surfaces 32 may be varied along the length of the panel 30 to produce uniform or other desired light output from the other side 36 of the panel." U.S. Pat. 5,005,108 at 4:60-64: "These diffuser surfaces 46 may vary in depth and/or width along the length of the panel 49, and may comprise a roughened surface, a lenticular surface, or a prismatic surface or the like that consists of multiple surface deformities." U.S. Pat. 5,005,108 at 5:54-64: "Also, the extractor 68 may consist of one or more coatings applied directly to selected areas of the top or bottom surfaces of the wave guide 67. These coatings may vary in frequency, index of refraction, color, and/or shape along the length of the panel 62. Reflectors 71 may also be provided at the end edge 72 of the wave guide 67 opposite the input edge 66 as well as at the side edges to reflect light back into the wave guide. Also, a back reflector 73 may be provided on the bottom surface 74 of the wave guide to reflect light back through the wave guide." U.S. Pat. 5,005,108 at 6:20-29:

			"FIGS. 11-14 schematically illustrate solid transparent light emitting panels having differently shaped light output regions. FIG. 11 shows a panel 90 with light input at one end edge 91 only and typical light ray travel. In this embodiment, panel 90 has a back reflector 92 on the bottom surface 93, an end reflector 94 on the end edge 95 opposite the input end edge 91, and a deformed light output region 96 whose depth progressively decreases along the length of the panel from the input end edge 91 toward the opposite end edge 95." U.S. Pat. 5,005,108 at 6:46-50: "Panel 115 shown in FIG. 14 is similar to panel 104 of FIG. 13 except that the back reflector 116 of FIG. 14 is deposited directly on the deformed light output region 117 and the depth of the panel is substantially uniform throughout its length." U.S. Pat. 5,005,108 at 7:9-17: "Referring next to FIGS. 15-19, different forms of transition devices for use in transmitting light from a remote location to the light emitting panels of the present invention are shown. As previously indicated, the purpose of such transition devices is to transmit light focused on its input surface or surfaces to a light emitting panel by converting a relatively easily focused cross-sectional shape of light to the shape of the panel input surface." U.S. Pat. 5,005,108 at 7:36-49: "In lieu of using optical fibers in the transition device, the transition device may be made from a solid transparent material such as glass, plastic or the like having an input surface at one end of a cross-sectional shape on which a light source is easily focused such as round or square and having an output surface at the other end in the shape of the panel input surface. FIG. 16 shows one such solid transparent transition device 125 having a substantially square input surface 126 at one end and a substantially rectangular output surface 127 at the other end,

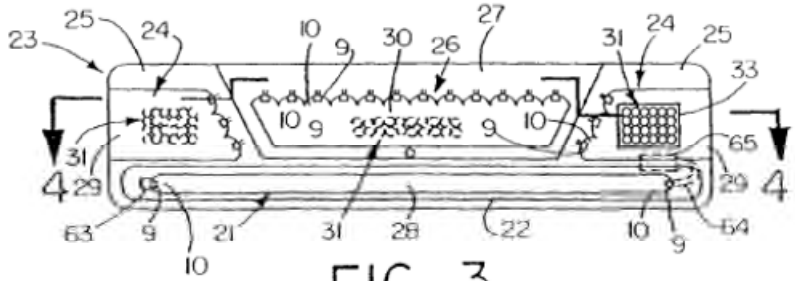
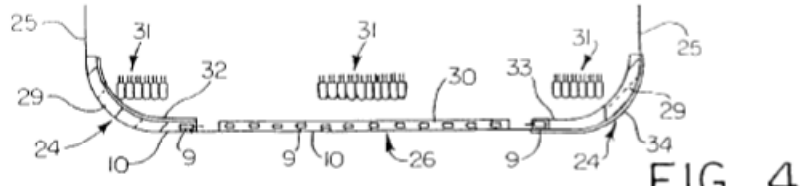
			whereas FIG. 17 shows another solid transparent transition device 130 having a round input surface 131 at one end and a substantially rectangular output surface132 at the other end." U.S. Pat. 5,005,108 at 9:10-24: "1. A panel illuminator comprising a solid transparent panel member having a greater cross sectional width than thickness and top and bottom surfaces and an input edge, transition means for receiving focused light from a light source and transmitting the focused light to said input edge for conduction by said panel member, and means for causing the conducted light to be emitted from one of said surfaces along the length of said panel member, said transition means including an input surface at one end shaped to permit a light source to be easily focused thereon, and an output surface at another end having a shape substantially corresponding in shape to said input edge of said panel member and connected thereto." U.S. Pat. 5,005,108 at 13:8 – 14:2: "72. A light emitting panel comprising a solid transparent light conducting panel member having a greater cross sectional width than thickness, said panel member being in the shape of a wave form of predetermined pattern having oppositely facing bends extending generally transversely across the width of said panel member at spaced apart intervals along the axial length of said panel member which cause light conducted by said panel member to be emitted from said bends." U.S. Pat. 5,005,108 at claims 2, 27, 28, 38, 39, 42, 50, 60, 70 (not reproduced here in interests of space). Any non-overlapping citations to the '108 patent in the "more in the width direction" term above. <u>Defendants' Evidence</u> The asserted claims, when read in light of the specification and the

			prosecution history, fails to inform, with reasonable certainty, those skilled in the art about the scope of the invention. Declaration of Robert Smith-Gillespie
20	**"positioned near" / "positioned near the light emitting surface…and air gap between" / "positioning a film near"** '194 patent / Claims 1, 23 '974 patent / Claims 1, 3, 5, 7, 13	Plaintiff's Construction plain meaning Defendants' Construction This term is indefinite under 35 U.S.C. § 112(2).	Plaintiff's Evidence Declaration of Kenneth Werner '194 patent at Abstract ("The film, sheet, plate or substrate may be positioned near the light emitting surface of a light emitting panel member with an air gap there between or over a cavity or recess in a tray through which light from a light source in the cavity or recess is emitted."). '194 patent at Col. 4, l. 63 – Col. 5, l. 2 ("The deformities may also be printed on a sheet or film which is used to apply the deformities to the panel member. This sheet or film may become a permanent part of the light panel assembly for example by attaching or otherwise positioning the sheet or film against one or both sides of the panel member similar to the sheet or film 27 shown in FIGS. 3 and 5 in order to produce a desired effect.") '194 patent at Col. 6, ll. 29-33 ("Moreover, a transparent film, sheet or plate 27 may be attached or positioned against the side or sides of the panel member from which light is emitted using a suitable adhesive 28 or other method in order to produce a desired effect.") '194 patent at Col. 6, ll. 39-54 ("If adhesive 28 is used to adhere the back reflector 26 and/or film 27 to the panel, the adhesive is preferably applied only along the side edges of the panel, and if desired the end edge opposite the light transition areas 12, but not over the entire surface area or areas of the panel because of the difficulty in consistently applying a uniform coating of adhesive to the panel. Also,

			the adhesive changes the internal critical angle of the light in a less controllable manner than the air gaps 30 (see FIG. 5) which are formed between the respective panel surfaces and the back reflector 26 and/or film 27 when only adhered along the peripheral edges. Additionally, longer panel members are achievable when air gaps 30 are used. If adhesive were to be used over the entire surface, the pattern of deformities could be adjusted to account for the additional attenuation in the light caused by the adhesive.") '194 patent at Figs. 1-15. '194 patent claim 1, 11, and 23. For the '974 patent, all counterpart passages and figures as identified above by Plaintiff for the '194 patent. '974 patent at Abstract ("The panel member has a pattern of light extracting deformities on or in at least one surface of the panel member to cause light received from at least one LED light source positioned near or against the light entrance surface of the panel member to be emitted from a light emitting surface of the panel member."). '974 patent col. 2, ln. 58 through col. 3, ln. 3 ("Referring now in detail to the drawings, and initially to FIG. 1, there is schematically shown one form of light emitting panel assembly 1 in accordance with this invention including a transparent light emitting panel 2 and one or more light sources 3 which emit light in a predetermined pattern in a light transition member or area 4 used to make the transition from the light source 3 to the light emitting panel 2, as well known in the art. The light that is transmitted by the light transition area 4 to the transparent light emitting panel 2 may be emitted along the entire length of the panel or from one or more light output areas along the length of the panel as desired to produce a desired light output distribution to fit a particular

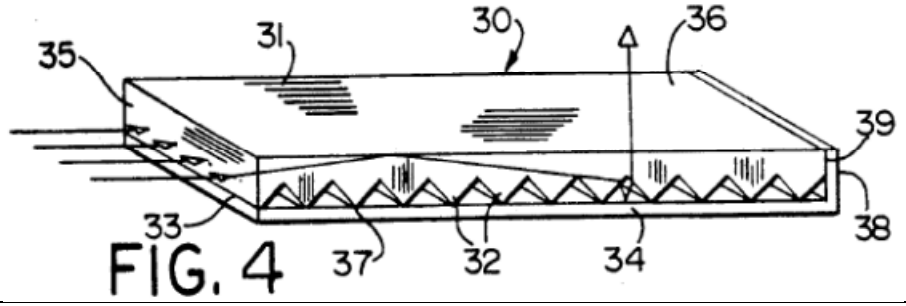
			application."). '974 patent col. 3, ll. 4-15 ("In FIG. 1 the light transition area 4 is shown as an integral extension of one end of the light emitting panel 2 and as being generally rectangular in shape. However, the light transition area may be of other shapes suitable for embedding, potting, bonding or otherwise mounting the light source. Also, reflective or refractive surfaces may be provided to increase efficiency. Moreover, the light transition area 4 may be a separate piece suitably attached to the light input surface 13 of the panel member if desired. Also, the sides of the light transition area may be curved to more efficiently reflect or refract a portion of the light emitted from the light source through the light emitting panel at an acceptable angle."). '974 patent col. 3, ll. 16-30 ("FIG. 2 shows another form of light emitting panel assembly 5 in accordance with this invention including a panel light transition area 6 at one end of the light emitting panel 7 with sides 8, 9 around and behind the light source 3 shaped to more efficiently reflect and/or refract and focus the light emitted from the light source 3 that impinges on these surfaces back through the light transition area 6 at an acceptable angle for entering the light input surface 18 at one end of the light emitting panel 7. Also, a suitable reflective material or coating 10 may be provided on the portions of the sides of the light transition areas of the panel assemblies of FIGS. 1 and 2 on which a portion of the light impinges for maximizing the amount of light or otherwise changing the light that is reflected back through the light transition areas and into the light emitting panels."). '974 patent col. 3, ll. 39-50 ("The panel assembly 11 of FIG. 3 includes a light transition area 12 at one end of the light emitting panel 14 having reflective and/or refractive surfaces 15 around and behind each light source 3. These surfaces 15 may be appropriately shaped including for example curved, straight and/or faceted surfaces, and if desired, suitable

			reflective materials or coatings may be provided on portions of these surfaces to more efficiently reflect and/or refract and focus a portion of the light emitted for example from an incandescent light source which emits light in a 360.degree. pattern through the light transition areas 12 into the light input surface 19 of the light emitting panel 14."). '974 patent col. 3, ln. 51 through col. 4, ln. 2 ("The light sources 3 may be mechanically held in any suitable manner in slots, cavities or openings 16 machined, molded or otherwise formed in the light transition areas of the panel assemblies. However, preferably the light sources 3 are embedded, potted or bonded in the light transition areas in order to eliminate any air gaps or air interface surfaces between the light sources and surrounding light transition areas, thereby reducing light loss and increasing the light output emitted by the light emitting panels. Such mounting of the light sources may be accomplished, for example, by bonding the light sources 3 in the slots, cavities or openings 16 in the light transition areas using a sufficient quantity of a suitable embedding, potting or bonding material 17. The slots, cavities or openings 16 may be on the top, bottom, sides or back of the light transition areas. Bonding can also be accomplished by a variety of methods that do not incorporate extra material, for example, thermal bonding, heat staking, ultrasonic or plastic welding or the like. Other methods of bonding include insert molding and casting around the light source(s).") '974 patent at claims 1, 3, 5, 7, 11, 13, and 17. <u>Defendants' Evidence</u> The asserted claims, when read in light of the specification and the prosecution history, fails to inform, with reasonable certainty, those skilled in the art about the scope of the invention. '194 Patent, at 4:65-5:2; '974 Patent, at 4:56-61 '194 Patent, at 6:18-24; '974 Patent, at 6:8-15

			’194 Patent, at 6:29-33; ’974 Patent, at 6:20-24 ’194 Patent, at 7:48-55; ’974 Patent, at 7:38-45 ’194 Patent, at 8:38-44; ’974 Patent, at 8:26-32 ’974 Patent, at 9:11-12, 9:45-46, 10:11-12, 10:37-38 ’194 Patent, at 10:34-38 Declaration of Robert Smith-Gillespie
21	**“edge of said panel assembly”** ’563 patent / Claims 1, 5, 11, 22	<u>Plaintiff’s Construction</u> plain meaning <u>Defendants’ Construction</u> This term is indefinite under 35 U.S.C. § 112(2).	<u>Plaintiff’s Evidence</u> Declaration of Kenneth Werner ’563 patent Figs. 3-4:  FIG. 3  FIG. 4 ’563 patent at 2:12-23 “In accordance with another aspect of the invention, one or more light sources may be mounted within one or more light transition areas

			or regions adjacent one or more light input surfaces of a light emitting panel member. In accordance with another aspect of the invention, one or more light sources may be positioned adjacent one side of the panel member for causing light to shine through the panel member or through holes in the panel member for performing specified lighting functions, for example, providing brake or turn signal lights and/or turning or backup illumination for a vehicle. In accordance with another aspect of the invention, one or more light sources may be selectively positioned along an edge or side of the panel member for increasing the light output from selected light output areas/regions on one or both sides of the panel member." '563 patent at 5:12-16: "The light sources may be of any suitable type including, for example, any of the types disclosed in U.S. Pat. Nos. 4,897,771 and 5,005,108, assigned to the same assignee as the present application, the entire disclosures of which are incorporated herein by reference." '563 patent at 7:35-48: "Moreover, a transparent film, sheet or plate may be attached or positioned against the side or sides of the panel members from which light is emitted using a suitable adhesive or other method in order to produce a desired effect. The transparent film may be used to further improve the uniformity of the light output distribution or change the output ray angle distribution. For example, the film may be a colored film, a diffuser, or a label or display, a portion of which may be a transparent overlay that may be colored and/or have text or an image thereon. Also the film may be a prismatic or lenticular lens or other device that changes the output ray angle distribution." '563 patent at 5:12-16:

			"The light sources may be of any suitable type including, for example, any of the types disclosed in U.S. Pat. Nos. 4,897,771 and 5,005,108, assigned to the same assignee as the present application, the entire disclosures of which are incorporated herein by reference." '563 patent at 8:52 – 9:36: "For example, the back end/bumper running light application shown in FIGS. 3 and 4 may only require one light source 9 and associated light transition region 10 at each end of the panel member 28, whereas the body panel and trunk lid running light applications shown in FIGS. 3 and 4 may require a plurality of closely spaced light sources 9 and associated light transition regions 10 along one or more light input surfaces of the panel members. FIGS. 3 and 4 show several such light sources and associated light transition regions along the back edges of the panel members 29 used to provide running taillights for a vehicle and along a top edge of the panel member 30 used to provide illumination on a trunk lid. Mounting all of the light sources for the tail running lights along the back edges of the panel members 29 (i.e., the edges closest to the trunk lid) minimizes the risk that the light sources themselves will be damaged in the event the tail running lights are impacted during minor traffic accidents and the like. These panel members may have a relatively thin, low profile, for example, less than one quarter inch thick, so as not to take up much space. Also, these panel members 29 may form the exterior surface of the body panel 25 as shown at the left hand side of FIG. 4 or a lens or film 34 may cover the panel members as shown at the right hand side of FIG. 4." In the usual case the light sources are embedded, potted or bonded in the light transition regions of the panels as previously described. However, FIG. 3 shows the light source 9 at the left end of panel member 28 mechanically held in place by a holder 63 received in a slot in an edge of the panel member. Also a fiber optic light pipe 64 is shown at the right end of the panel member 28 of FIG. 3 for transmitting light to the panel member from a remote light source 65 located for

			example in the trunk or other remote location in the vehicle. An additional array of light sources 31 such as LEDs or incandescent or halogen lamps (with or without reflectors) may also be strategically mounted inwardly (i.e., behind) the inner surface of the light emitting panel members 29 and/or 20 to cause a more intense light to shine through the panel members and a trans reflector 32 if provided on the panel members or through one or more clear areas or holes 33 through the panel members where no print pattern, back reflector or trans reflector is provided on the panel members as also schematically shown in FIGS. 3 and 4 for specific applications, for example, to provide brake or turn signal lights, turning or backup illumination, etc. By locating the light sources 9 for illuminating the panel members 29 themselves adjacent one or more ends of the panel members, they will not interfere with or obstruct the visibility of the array of light sources 31 shining through the panel members." '563 patent / Claims 1, 5, 11, 22 U.S. Pat. 5,005,108 Figs. 4, 7, 11-14:  FIG. 4

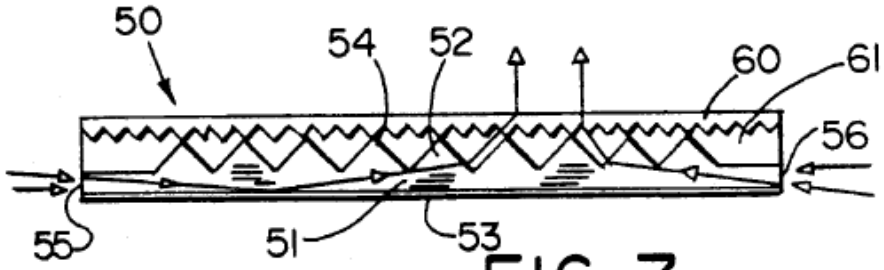


FIG. 7

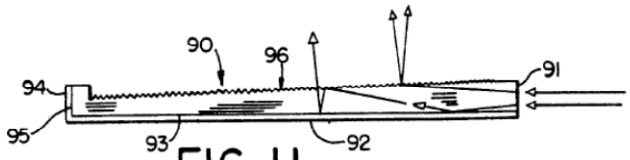


FIG. 11

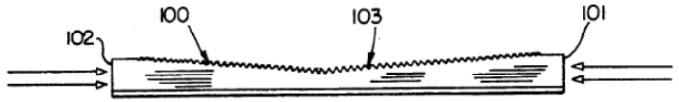


FIG. 12

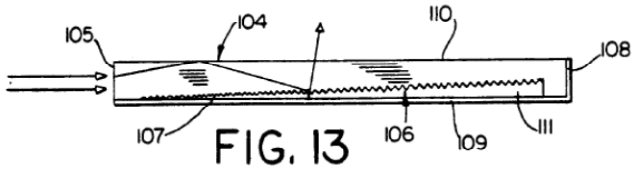


FIG. 13

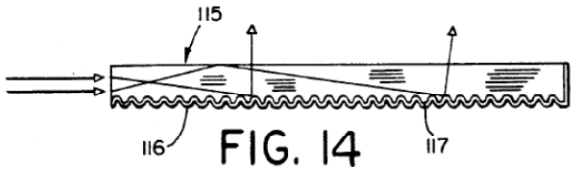
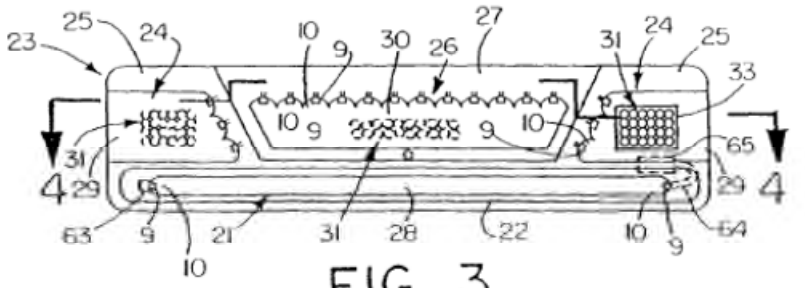
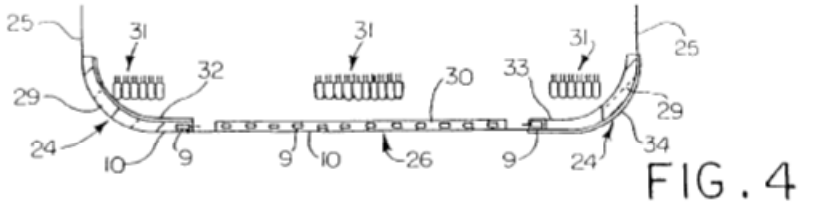


FIG. 14

U.S. Pat. 5,005,108 at 2:44-47:

			U.S. Pat. 5,005,108 at 1:30-34: "In another form of the invention, the panel member comprises a solid transparent wave guide having a prismatic surface on one side to cause the light rays entering the wave guide through an input surface (end edge) to exceed the internal critical angle and be emitted." U.S. Pat. 5,005,108 at 4:23-44: "FIG. 4 shows another form of light emitting panel 30 in accordance with this invention including a solid transparent wave guide 31 similar to the wave guide 15 of FIG. 1 but having a prismatic surface 32 on a side 33 which is covered by a back reflector 34. Accordingly, when the prismatic surface 32 is struck by light rays entering an input end edge 35 of the wave guide 31, causing the light rays to exceed the internal critical angle and be emitted, the emitted light rays will be reflected back through the panel by the back reflector 34 and out the other side 36 of the panel as schematically shown in FIG. 4. The angles and/or depth of these prismatic surfaces 32 may be varied along the length of the panel 30 to produce uniform or other desired light output from the other side 36 of the panel. In FIG. 4, the light rays are shown entering the panel 30 through an end edge 35 generally perpendicular to the prism edges 37. Also, an end reflector 38 is shown on the end edge 39 of the panel opposite the input end edge 35. However, if desired, light rays may be caused to enter the panel 30 from both end edges 35, 39, in which event the end reflector 38 would be eliminated." U.S. Pat. 5,005,108 at 5:6-19: "FIG. 7 schematically shows another form of light emitting panel 50 in accordance with this invention which also comprises a solid transparent prismatic film 51 having a prismatic surface 52 on one side and a back reflector 53 on the other side, similar to the light emitting panel 2 shown in FIG. 1. Light rays may be caused to enter the panel 50

			perpendicular to the wave guide prism edges 54 from one or both end edges 55, 56 of the panel, and are internally reflected until they strike a deformity (in this case an edge 54 of the panel prismatic surfaces 52) which causes the light rays to be emitted. The size, shape and depth of the wave guide deformities 52 may be varied along the length of the panel to produce a desired light output distribution." U.S. Pat. 5,005,108 at 6:20-38: "FIGS. 11-14 schematically illustrate solid transparent light emitting panels having differently shaped light output regions. FIG. 11 shows a panel 90 with light input at one end edge 91 only and typical light ray travel. In this embodiment, panel 90 has a back reflector 92 on the bottom surface 93, an end reflector 94 on the end edge 95 opposite the input end edge 91, and a deformed light output region 96 whose depth progressively decreases along the length of the panel from the input end edge 91 toward the opposite end edge 95. FIG. 12 shows a panel 100 with light input at opposite end edges 101 and 102 and a deformed output region 103 that progressively decreases in depth from both input end edges 101, 102 toward the middle of the length of the panel. FIG. 13 shows a panel 104 with light input at one end edge 105 only and a deformed light output region 106 on the bottom surface 107 whose depth progressively decreases from the input end edge 105 toward the opposite end edge 108." U.S. Pat. 5,005,108 at 6:51-63: "In each instance, the light input surfaces (end or side edges) of the light emitting panels may be lens shaped or tapered to alter the input light ray distribution….Moreover, the light input surfaces, bottom surface and/or top surface of the panels may be coated to reflect or absorb certain frequencies of light." <u>Defendants' Evidence</u> The asserted claims, when read in light of the specification and the

			prosecution history, fails to inform, with reasonable certainty, those skilled in the art about the scope of the invention. Declaration of Robert Smith-Gillespie
22	**"for shining light through said panel member"** '563 patent / Claim 5	Plaintiff's Construction plain meaning Defendants' Construction "designed to cause light to shine through the panel member"	Plaintiff's Evidence '563 patent Figs. 3-4:  FIG. 3  FIG. 4 '563 patent Abstract: "Also one or more light sources may be positioned adjacent one side of the light emitting panel members for causing light to shine through the panel members or through holes in the panel members for performing specified lighting functions." '563 patent at 2:12-18: "In accordance with another aspect of the invention, one or more light

			sources may be positioned adjacent one side of the panel member for causing light to shine through the panel member or through holes in the panel member for performing specified lighting functions, for example, providing brake or turn signal lights and/or turning or backup illumination for a vehicle." '563 patent at 9:21-36: "An additional array of light sources 31 such as LEDs or incandescent or halogen lamps (with or without reflectors) may also be strategically mounted inwardly (i.e., behind) the inner surface of the light emitting panel members 29 and/or 20 to cause a more intense light to shine through the panel members and a trans reflector 32 if provided on the panel members or through one or more clear areas or holes 33 through the panel members where no print pattern, back reflector or trans reflector is provided on the panel members as also schematically shown in FIGS. 3 and 4 for specific applications, for example, to provide brake or turn signal lights, turning or backup illumination, etc. By locating the light sources 9 for illuminating the panel members 29 themselves adjacent one or more ends of the panel members, they will not interfere with or obstruct the visibility of the array of light sources 31 shining through the panel members." '563 patent at 11:51-56: "Also, separate indicator lights 89 may be mounted at selected positions on a printed circuit 90 inwardly of both panel members 71, 72 for shining light through both panel members to different indicators 91 on the graphic overlay 74 as schematically shown in FIGS. 12 and 13." '563 patent at 12:28-32: "Also, additional light sources 106' may be placed behind the panel members for shining light through the light emitting surface areas or other surface areas of the panel member as shown in phantom lines in FIG. 16."

			’563 file history, Notice of Allowability at 2 (8/15/2002): “Claims 31-37 are allowable over the prior art for at least the reason that the prior art fails to teach or reasonably suggest another light source located directly behind the panel member for shining light through the panel member independently of the light emitted by the panel member as set forth in the claimed combination.” ’563 patent / Claim 5 <u>Defendants’ Evidence</u> **<u>‘563 Patent:</u>** • 2:13-19: “In accordance with another aspect of the invention, one or more light sources may be positioned adjacent one side of the panel member for causing light to shine through the panel member or through holes in the panel member for performing specified lighting functions, for example, providing brake or turn signal lights and/or turning or backup illumination for a vehicle.” • 9:21-43 “An additional array of light sources 31 such as LEDs or incandescent or halogen lamps (with or without reflectors) may also be strategically mounted inwardly (i.e., behind) the inner surface of the light emitting panel members 29 and/or 30 to cause a more intense light to shine through the panel members and a trans reflector 32 if provided on the panel members or through one or more clear areas or holes 33 through the panel members where no print pattern, back reflector or trans reflector is provided on the panel members as also schematically shown in FIGS. 3 and 4 for specific applications, for example, to provide brake or turn signal lights, turning or backup illumination, etc. By locating the light sources 9 for illuminating the panel members 29 themselves adjacent one or more ends of the panel members, they will not interfere with or obstruct the

visibility of the array of light sources 31 shining through the panel members."

- Abstract: "Also one or more light sources may be positioned adjacent one side of the light emitting panel members for causing light to shine through the panel members or through holes in the panel members for performing specified lighting functions."
- FIG. 3

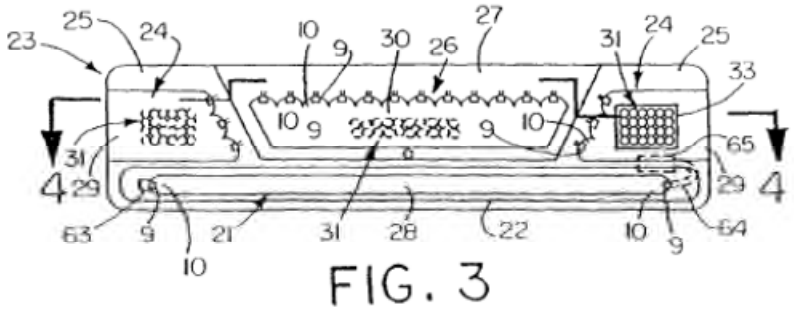


FIG. 3

FIG. 4

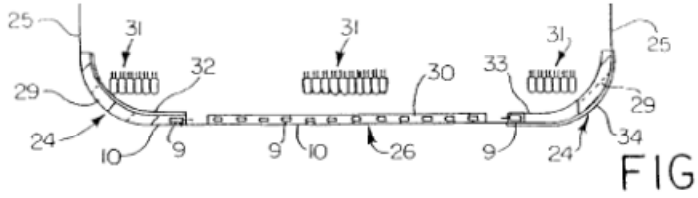
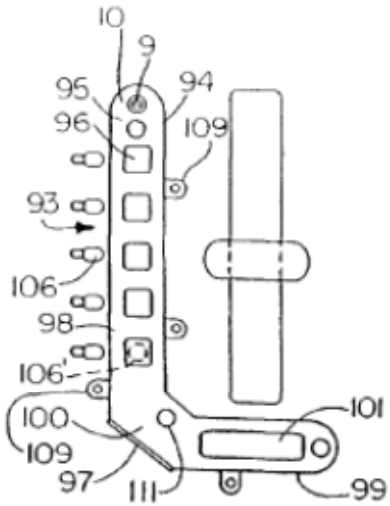
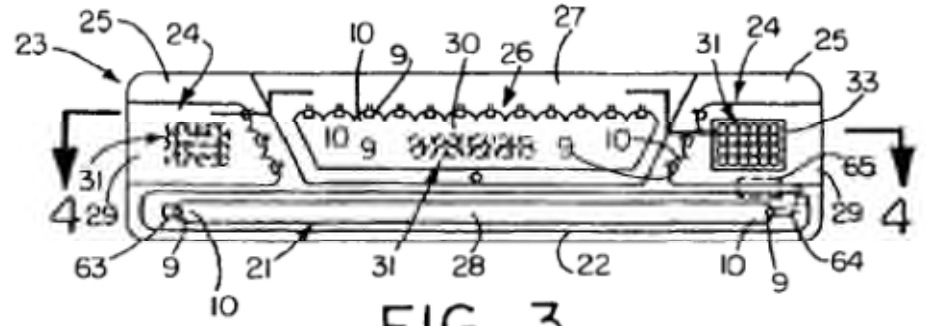
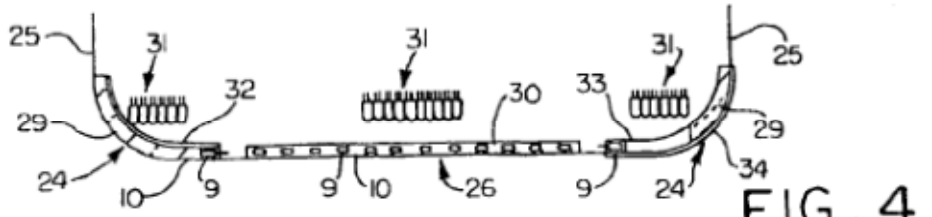


FIG. 4

Claim 6: "The assembly of claim 5 wherein said other light source provides greater illumination through said panel member than the light emitted from said one of said top and bottom surfaces because of the greater light concentration effect of said other light source shining directly through said panel member."

12:28-32: "Also, additional light sources 106′ may be placed behind

			the panel members for shining light through the light emitting surface areas or other surface areas of the panel member as shown in phantom lines in FIG. 16." FIG. 16  FIG. 16 11:51-56: "Also, separate indicator lights 89 may be mounted at selected positions on a printed circuit 90 inwardly of both panel members 71, 72 for shining light through both panel members to different indicators 91 on the graphic overlay 74 as schematically shown in FIGS. 12 and 13." **Extrinsic Evidence:** *Webster's Ninth New Collegiate Dictionary* (1991): "for" means "used as a function word to indicate purpose" "used as a function word to indicate an intended goal," "used as a function word to indicate the object or recipient of a perception, desire, or activity," or "used as a function word to indicate suitability or

			fitness”
23	**“one or more light emitting diodes along said light input surface for receiving light from said light emitting diodes and conducting the light from said edge for emission of the light from at least one of said sides.”** ’956 patent / Claim 1	Plaintiff’s Construction plain meaning Defendants’ Construction This term is indefinite under 35 U.S.C. § 112(2).	Plaintiff’s Evidence Declaration of Kenneth Werner ’956 patent at Figs. 3-4:  FIG. 3  FIG. 4 ’956 patent at 2:10-13: “In accordance with another aspect of the invention, one or more light sources may be mounted within one or more light transition areas or regions adjacent one or more light input surfaces of a light emitting panel member.”

			’956 patent at 4:51 – 5:17: “The light emitting panel assembly 1 includes a transparent light emitting panel member 8 having one or more light sources 9 mounted within one or more light transition areas or regions 10 at one or both ends of the panel member mounted within the air bag/steering wheel covering 11 outwardly of the air bag 4. In FIGS. 1 and 2, two such light transition areas or regions 10 and light sources 9 are shown at one end of one or two panel members 8 for selectively lighting one or two rows of control buttons 5. The light that enters the transparent light emitting panel members 8 from the light transition region(s) 10 may be emitted along the entire length of the panel members or from one or more light output surface areas along their length as desired to produce a desired light output distribution to fit a particular application. The light sources 9 may be mechanically held in any suitable manner in slots, cavities or openings machined, molded or otherwise formed in the light transition regions of the panel assemblies. However, the light sources may be embedded, potted or bonded in the light transition regions in order to eliminate any air gaps or air interface surfaces between the light sources and surrounding light transition regions, thereby reducing light loss and increasing the light output emitted by the light emitting panels. Bonding may be accomplished using a suitable embedding, potting or bonding material or by a variety of methods that do not incorporate extra material, for example, thermal bonding, heat staking, ultrasonic or plastic welding or the like. Other methods of bonding include insert molding and casting around the light sources. The light sources may be of any suitable type including, for example, any of the types disclosed in U.S. Pat. Nos. 4,897,771 and 5,005,108, assigned to the same assignee as the present application, the entire disclosures of which are incorporated herein by reference.” ’956 patent at 8:51 – 9:22: “The number and location of light sources 9 and associated light transition regions 10 for a given light emitting panel member may vary

			for a given application depending on the overall size and shape of each panel member and desired amount of light output therefrom. For example, the back end/bumper running light application shown in FIGS. 3 and 4 may only require one light source 9 and associated light transition region 10 at each end of the panel member 28, whereas the body panel and trunk lid running light applications shown in FIGS. 3 and 4 may require a plurality of closely spaced light sources 9 and associated light transition regions 10 along one or more light input surfaces of the panel members. FIGS. 3 and 4 show several such light sources and associated light transition regions along the back edges of the panel members 29 used to provide running taillights for a vehicle and along a top edge of the panel member 30 used to provide illumination on a trunk lid. Mounting all of the light sources for the tail running lights along the back edges of the panel members 29 (i.e., the edges closest to the trunk lid) minimizes the risk that the light sources themselves will be damaged in the event the tail running lights are impacted during minor traffic accidents and the like. These panel members may have a relatively thin, low profile, for example, less than one quarter inch thick, so as not to take up much space. Also, these panel members 29 may form the exterior surface of the body panel 25 as shown at the left hand side of FIG. 4 or a lens or film 34 may cover the panel members as shown at the right hand side of FIG. 4. In the usual case the light sources are embedded, potted or bonded in the light transition regions of the panels as previously described. However, FIG. 3 shows the light source 9 at the left end of panel member 28 mechanically held in place by a holder 63 received in a slot in an edge of the panel member. Also a fiber optic light pipe 64 is shown at the right end of the panel member 28 of FIG. 3 for transmitting light to the panel member from a remote light source 65 located for example in the trunk or other remote location in the vehicle." '956 file history, Reply to Office Action of June 29, 2004 at 2 (10/01/2004); see also Reply to Notice of Non-Compliant Amendment

			Mailed October 12, 2004 at 3 (10/25/2004): "Claim 1 (currently amended): A light emitting assembly for vehicle illumination comprising a light guide having opposite sides and at least one light input surface along at least one edge of said light guide, one or more light emitting diodes along said light input surface for ~~supplying light to said light guide~~ receiving light from said light emitting diodes and conducting the light from said edge for emission of the light from at least one of said sides, a plurality of light extracting deformities on at least one ~~surface of said light guide~~ of said sides, said deformities having shapes for controlling an output ray angle distribution of emitted light to suit a particular application, and a transparent substrate overlying at least one ~~surface of said light guide~~ of said sides, said substrate providing an exterior portion of a vehicle for vehicle illumination at said exterior portion." (underlining and strike-through in original) '956 file history, Reply to Office Action of June 29, 2004 at 8-9 (10/01/2004): "However, the light emitting assembly of Serizawa is a high mount stop lamp that is either mounted on the exterior or interior of a vehicle. Thus the so-called substrate 218 of Serizawa (which is actually a light shielding film on the front surface of the front lens 205) does not provide an exterior portion of a vehicle for vehicle illumination at the exterior portion as recited in claim 1. Moreover, the light emitting diodes of Serizawa are positioned adjacent one side of the lens assembly 104 for shining light through the lens assembly from one side to the other. In contrast, claim 1 has been amended more particularly to recite that the light guide has opposite sides and at least one light input surface along at least one edge of the light guide, and that one or more light emitting diodes are along the light input surface for receiving light from the light emitting diodes and conducting the light from the edge of the light guide for emission of the light from at least one of the sides, in a manner clearly nowhere taught by Serizawa. Accordingly, claim 1 is

			submitted as clearly allowable." '956 file history, Notice of Allowability at 3 (12/29/2004): "Reasons for Allowance: Claims 1-8, 10-23, 26-33 and 53-55 are allowable in view of the Amendment to claims filed 10/25/2004 and further in view of Applicant remarks." '956 patent / Claim 1 U.S. Pat. 5,005,108 at 6:20-53: "FIGS. 11-14 schematically illustrate solid transparent light emitting panels having differently shaped light output regions. FIG. 11 shows a panel 90 with light input at one end edge 91 only and typical light ray travel. In this embodiment, panel 90 has a back reflector 92 on the bottom surface 93, an end reflector 94 on the end edge 95 opposite the input end edge 91, and a deformed light output region 96 whose depth progressively decreases along the length of the panel from the input end edge 91 toward the opposite end edge 95. FIG. 12 shows a panel 100 with light input at opposite end edges 101 and 102 and a deformed output region 103 that progressively decreases in depth from both input end edges 101, 102 toward the middle of the length of the panel. FIG. 13 shows a panel 104 with light input at one end edge 105 only and a deformed light output region 106 on the bottom surface 107 whose depth progressively decreases from the input end edge 105 toward the opposite end edge 108. Also, a back reflector 109 is shown mounted on the bottom surface 107 of the panel 108 to redirect the light that is emitted from the light output region 106 back through the panel and out the top surface 110. In this embodiment, either an air gap or a transparent fill material 111 having a suitable index of refraction may separate the back reflector 109 from the panel 104. Panel 115 shown in FIG. 14 is similar to panel 104 of FIG. 13 except that the back reflector 116 of FIG. 14 is deposited directly on the deformed light output region 117 and the depth of the panel is

			substantially uniform throughout its length. "In each instance, the light input surfaces (end or side edges) of the light emitting panels may be lens shaped or tapered to alter the input light ray distribution." Defendants' Evidence The asserted claims, when read in light of the specification and the prosecution history, fails to inform, with reasonable certainty, those skilled in the art about the scope of the invention. '956 File History, Reply to Office Action of February 12, 2004, dated June 11, 2004 '956 File History, Reply to Office Action of June 29, 2004, dated September 29, 2004 Declaration of Robert Smith-Gillespie
24	**"output distribution defined by a greater width component than height component"** '660 patent / Claims 1, 33, 34	Plaintiff's Construction plain meaning Defendants' Construction This term is indefinite under 35 U.S.C. § 112(2).	Plaintiff's Evidence Declaration of Kenneth Werner For the '660 patent all counterpart passages and figures as identified for terms "more in the width direction" above. '660 patent at Abstract ("Light emitting assemblies include a generally planar optical conductor having at least one input edge with a greater cross-sectional width than thickness and at least one light source having a light output distribution with a greater width component than height component positioned adjacent to the input edge for directing light into the optical conductor and emission of the light from at least one output region of the optical conductor. A transition region is disposed between the light source and output region that is configured to spread and transmit the light by the light source to the output region. A plurality of

			faceted surfaces in close proximity to the light source maximize or otherwise change the light emitted from the light source.") '660 patent col. 1, ll. 19-23 ("This invention relates generally, as indicated, to light emitting panel assemblies each including a transparent panel member for efficiently conducting light, and controlling the light conducted by the panel member to be emitted from one or more light output areas along the length thereof.") '660 patent col. 1, ll. 24-29 ("Light emitting panel assemblies are generally known. However, the present invention relates to several different light emitting panel assembly configurations which provide for better control of the light output from the panel assemblies and for more efficient utilization of light, which results in greater light output from the panel assemblies. ") '660 patent col. 1, ll. 44-50 ("In accordance with another aspect of the invention, the panel assemblies may include reflective or refractive surfaces for changing the path of a portion of the light, emitted from the light source, that would not normally enter the panel members at an acceptable angle that allows the light to remain in the panel members for a longer period of time and/or increase the efficiency of the panel members.") '660 patent col. 1, ln. 66 through col. 2, ln. 4 ("The various light emitting panel assemblies of the present invention are very efficient panel assemblies that may be used to produce increased uniformity and higher light output from the panel members with lower power requirements, and allow the panel members to be made thinner and/or longer, and/or of various shapes and sizes.") '660 patent col. 2, ll. 5-11 ("To the accomplishment of the foregoing and related ends, the invention then comprises the features hereinafter

			fully described and particularly pointed out in the claims, the following description and the annexed drawings setting forth in detail certain illustrative embodiments of the invention, these being indicative, however, of but several of the various ways in which the principles of the invention may be employed.") '660 patent col. 2, ln. 59 through col. 3, ln. 4 ("Referring now in detail to the drawings, and initially to FIG. 1, there is schematically shown one form of light emitting panel assembly 1 in accordance with this invention including a transparent light emitting panel 2 and one or more light sources 3 which emit light in a predetermined pattern in a light transition member or area 4 used to make the transition from the light source 3 to the light emitting panel 2, as well known in the art. The light that is transmitted by the light transition area 4 to the transparent light emitting panel 2 may be emitted along the entire length of the panel or from one or more light output areas along the length of the panel as desired to produce a desired light output distribution to fit a particular application.") '660 patent col. 3, ll. 32-38 ("The panel assemblies shown in FIGS. 1 and 2 include a single light source 3, whereas FIG. 3 shows another light emitting panel assembly 11 in accordance with this invention including two light sources 3. Of course, it will be appreciated that the panel assemblies of the present invention may be provided with any number of light sources as desired, depending on the particular application.") '660 patent col. 3, ll. 39-50 ("The panel assembly 11 of FIG. 3 includes a light transition area 12 at one end of the light emitting panel 14 having reflective and/or refractive surfaces 15 around and behind each light source 3. These surfaces 15 may be appropriately shaped including for example curved, straight and/or faceted surfaces, and if desired, suitable reflective materials or coatings may be provided on portions of these

			surfaces to more efficiently reflect and/or refract and focus a portion of the light emitted for example from an incandescent light source which emits light in a 360° pattern through the light transition areas 12 into the light input surface 19 of the light emitting panel 14.") '660 patent col. 4, ll. 12-30 ("Each light source 3 may also be of any suitable type including, for example, any of the types disclosed in U.S. Pat. Nos. 4,897,771 and 5,005,108, assigned to the same assignee as the present application, the entire disclosures of which are incorporated herein by reference. In particular, the light sources 3 may be an arc lamp, an incandescent bulb which also may be colored, filtered or painted, a lens end bulb, a line light, a halogen lamp, a light emitting diode (LED), a chip from an LED, a neon bulb, a fluorescent tube, a fiber optic light pipe transmitting from a remote source, a laser or laser diode, or any other suitable light source. Additionally, the light sources 3 may be a multiple colored LED, or a combination of multiple colored radiation sources in order to provide a desired colored or white light output distribution. For example, a plurality of colored lights such as LEDs of different colors (red, blue, green) or a single LED with multiple colored chips may be employed to create white light or any other colored light output distribution by varying the intensities of each individual colored light.") '660 patent col. 8, ll. 17-26 ("Providing one or more transition areas at one or both ends of the panel member of any desired dimension to accommodate one or more light sources, with reflective and/or refractive surfaces on the transition areas for redirecting the light rays into the panel member at relatively low angles allows the light emitting panel member to be made much longer and thinner than would otherwise be possible. For example the panel members of the present invention may be made very thin, i.e., 0.125 inch thick or less.") '660 patent col. 8, ll. 39-56 ("FIG. 14 schematically illustrates still

			another form of light emitting panel assembly 80 in accordance with this invention including a light emitting panel 81 and one or more light sources 3 positioned, embedded, potted, bonded or otherwise mounted in a light transition area 82 that is at an angle relative to the panel member 81 to permit more efficient use of space. An angled or curved reflective or refractive surface 83 is provided at the junction of the panel member 81 with the transition area 82 in order to reflect/refract light from the light source 3 into the body of the panel member 81 for emission of light from one or more light emitting areas 84 along the length of the panel member.") '660 patent col. 8, ll. 57-67 ("FIG. 15 schematically illustrates still another form of light emitting panel assembly 90 in accordance with this invention including a light transition area 91 at one or both ends of a light emitting panel member 92 containing a slot 93 for sliding receipt of an LED or other suitable light source 3. Preferably the slot 93 extends into the transition area 91 from the back edge 94, whereby the light source 3 may be slid and/or snapped in place in the slot from the back, thus allowing the transition area to be made shorter and/or thinner. The light source 3 may be provided with wings, tabs or other surfaces 95 for engagement in correspondingly shaped recesses or grooves 96 or the like in the transition area 91 for locating and, if desired, securing the light source in place. Also, the light source 3 may be embedded, potted, bonded or otherwise secured within the slot 93 in the light transition area 91 of the panel member 92. Light from a secondary light source 97 may be projected through the panel member 92 for indication or some other effect.") '660 patent col. 9, ll. 1-7 ("Although the invention has been shown and described with respect to certain preferred embodiments, it is obvious that equivalent alterations and modifications will occur to others skilled in the art upon the reading and understanding of the specification. The present invention includes all such equivalent alterations and

			modifications, and is limited only by the scope of the claims.") '660 patent Figures 1, 2, 7, 10, 11, and 15. '660 patent claims 1 and 33 '771 patent at col. 7, ll. 40-53 ("In still another form of reflector and light system 38 shown in FIG. 10, the collecting reflector 39 is elongated in the transverse plane to accommodate a line filament lamp 40 located substantially at the focus F of the collecting reflector which extends substantially the full width thereof. Also, the back reflector 41 may be a flat rectangular mirror whose focus is outside a long narrow optical window 42 extending substantially the full width of the smaller open end 43 of the collecting reflector. Such a reflector and light system 38 may be used in any application where a highly efficient uniform line of light is desired, such as in photocopy machines, or for illuminating ribbon fiber optic cables or reading identification cards and the like."). '771 Patent at Fig. 10. '108 patent at col. 1, ll. 43-48 ("In still another form of the invention, the panel member comprises a prismatic film having prism ridges running generally parallel to each other, with deformities along the tops of the prism ridges to cause light to be emitted. Also, diffuser surfaces, which may vary in depth and/or width, may be formed along the length of the prismatic surfaces."). '108 patent col. 3, ln. 55 through col. 4, ln. 2 ("Another light emitting panel 24 in accordance with this invention is schematically shown in FIG. 2 and comprises a thin light conducting ribbon or film 25 bent into a wave form of predetermined pattern. Although the dimensions of the panel 24 may vary, as an example, the panel 24 may be approximately 0.020 inch thick and have an overall height of approximately 0.040

			inch, and be of any desired width or length depending on the particular application. Such a panel 24 may be made in any suitable manner, for example, by vacuum forming or injection molding. During the forming operation, the ribbon or film 25 is bent in a predetermined pattern, with the number of bends 26 per unit length, the effective bend radius, the panel thickness, the index of refraction ratio, and the internal ray distribution determining the light output and efficiency of the panel."). '108 patent col. 4, ln. 57 through col. 5, ln. 5 ("Alternatively, diffuser surfaces 46 may be formed along the top edges 47 of the prismatic surfaces 48 of a prismatic film light emitting panel 49 as schematically shown in FIG. 6. These diffuser surfaces 46 may vary in depth and/or width along the length of the panel 49, and may comprise a roughened surface, a lenticular surface, or a prismatic surface or the like that consists of multiple surface deformities. A roughened surface, for example, may be produced by grinding, sanding, laser cutting or milling. Also, both of the light emitting panels 40 and 49 shown in FIGS. 5 and 6 may have prismatic surfaces on both the top and bottom surfaces rather than on just one surface as shown, and one or the other of the top or bottom surface may be provided with a back reflector similar to the back reflector 34 shown in FIG. 4 to redirect emitted light back through the panel toward a particular application."). '108 Patent at Figs. 1-7. '108 Patent at claims 1, 2. <u>Defendants' Evidence</u> The asserted claims, when read in light of the specification and the prosecution history, fails to inform, with reasonable certainty, those skilled in the art about the scope of the invention. Declaration of Robert Smith-Gillespie

The anticipated length of time necessary for the Claim Construction Hearing;

Plaintiff anticipates 4 hours as the total length of time necessary for the claim construction hearing.

Defendants' anticipate 4 hours as the total length of time necessary for the claim construction hearing.

Whether any party proposes to call one or more witnesses, including experts, at the Claim Construction Hearing, the identity of each such witness, and for each expert, a summary of each opinion to be offered in sufficient detail to permit a meaningful deposition of that expert; and

At this time, Plaintiffs do not intend to call a witness at the claim construction hearing. That position is contingent on Defendants' representation below that they will not call any witnesses. If Defendants change that position and are able to offer a witness, Plaintiffs will call the expert identified in the chart above, Kenneth Werner, to testify against the positions taken by Defendants.

At this time, Defendants do not propose calling any witnesses at the Claim Construction Hearing. However, Defendants reserve the right to call witnesses in response to any witnesses that Plaintiff calls to testify at the Claim Construction Hearing.

A list of any other issues which might appropriately be taken up at a prehearing conference prior to the Claim Construction Hearing, and proposed dates, if not previously set, for any such prehearing conference.

None from Plaintiffs at this time.

None from Defendants at this time.

Dated: February 20, 2015 Respectfully submitted,

/s/ Jeffrey R. Bragalone, with permission Jeffrey R. Bragalone (Lead Attorney) Texas Bar No. 02855775 jbragalone@bcpc-law.com Patrick J. Conroy Texas Bar No. 24012448 pconroy@bcpc-law.com Justin B. Kimble jkimble@bcpc-law.com Texas Bar No. 24036909 T. William Kennedy, Jr. Texas Bar No. 24055771 bkennedy@bcpc-law.com Daniel F. Olejko Pennsylvania Bar No. 205512 dolejko@bcpc-law.com Bragalone Conroy PC 2200 Ross Avenue Suite 4500W Dallas, TX 75201 Tel: 214-785-6670 T. John Ward Jr. Texas Bar No. 00794818 jw@wsfirm.com Claire Abernathy Henry Texas Bar No. 24053063 claire@wsfirm.com Ward & Smith Law Firm 1127 Judson Road, Suite 220 Longview, TX 75601 Tel: 903-757-6400 ATTORNEYS FOR PLAINTIFFS INNOVATIVE DISPLAY TECHNOLOGIES LLC AND DELAWARE DISPLAY GROUP LLC	*/s/ George W. Webb III, with permission* Demetrios Anaipakos Texas Bar No. 00793258 Email: danaipakos@azalaw.com Amir Alavi Texas Bar No. 00793239 aalavi@azalaw.com Brian E. Simmons bsimmons@azalaw.com Texas Bar No. 24004922 George W. Webb III gwebb@azalaw.com Texas Bar No. 24003146 AHMAD, ZAVITSANOS, ANAIPAKOS, ALAVI & MENSING P.C. 1221 McKinney Street, Suite 3460 Houston, TX 77010 Tel: 713-655-1101 ATTORNEYS FOR PLAINTIFF INNOVATIVE DISPLAY

/s/ Cynthia J. Rigsby , with permission Jose L. Patino (Lead Attorney) jpatino@foley.com Foley & Lardner LLP 3579 Valley Centre Drive Suite 300 San Diego, CA 92130 Tel: 858-847-6875 Cynthia J. Rigsby crigsby@foley.com Foley & Lardner LLP 777 E. Wisconsin Ave. Suite 3800 Milwaukee, WI 53202 Tel: 414-297-5580 Robert W. Weber Texas State Bar No. 21044800 bweber@smithweber.com SMITH WEBER, L.L.P. 5505 Plaza Drive -- P.O. Box 6167 Texarkana, TX 75505-6167 Tel: 903-223-5656 ATTORNEY FOR DEFENDANTS SPRINT SPECTRUM, L.P., SPRINT SOLUTIONS,INC., BOOST MOBILE, LLC, and VIRGIN MOBILE USA, L.P.	*/s/ Scott W. Doyle, with permission* Scott W. Doyle scott.doyle@shearman.com Jonathan R. DeFosse jonathan.defosse@shearman.com SHEARMAN & STERLING LLP 801 Pennsylvania Ave., N.W. Washington, DC 20004 Tel: (202) 508-8000 Fax: (202) 508-8100 ATTORNEY FOR DEFENDANTS MERCEDES-BENZ U.S. INTERNATIONAL, INC. AND MERCEDES-BENZ USA, LLC

	/s/ Jamie B. Beaber Jamie B. Beaber Hyunho "Harry" Park MAYER BROWN LLP 1999 K Street, NW Washington, DC 20006 Telephone: (202) 263-3000 jbeaber@mayerbrown.com harrypark@mayerbrown.com Robert G. Pluta Amanda K. Streff MAYER BROWN LLP 71 S. Wacker Drive Chicago, IL 60606 Telephone: (312) 701-8641 rpluta@mayerbrown.com astreff@mayerbrown.com Michael E. Jones State Bar No. 10929400 mikejones@potterminton.com Allen F. Gardner State Bar No. 24043679 allengardner@potterminton.com POTTER MINTON P.C. 110 N. College Avenue, Suite 500 Tyler, Texas 75702 Telephone: (903) 597-8311 Facsimile: (903) 593-0846 ATTORNEYS FOR DEFENDANTS HYUNDAI MOTOR COMPANY, HYUNDAI MOTOR AMERICA, HYUNDAI MOTOR MANUFACTURING ALABAMA, LLC, KIA MOTORS CORPORATION, KIA MOTORS AMERICA, INC., KIA MOTORS MANUFACTURING GEORGIA, INC.

/s/ Matthew D. Satchwell, with permission Matthew D. Satchwell DLA PIPER LLP 203 N. LaSalle St., Suite 1900 Chicago, IL 60601 Telephone: 312.368.2111 Facsimile: 312.236.7516 matthew.satchwell@dlapiper.com Aaron G. Fountain Texas Bar No. 24029638 DLA PIPER LLP 1000 Louisiana, Suite 2800 Houston, Texas 77002 Telephone: 713.425.8445 Facsimile: 713.300.6045 aaron.fountain@dlapiper.com Dawn M. Jenkins Texas Bar No. 24074484 DLA PIPER LLP 1000 Louisiana Street, Suite 2800 Houston, Texas 77002 Telephone: 713.425.8454 Facsimile: 713.300.6054 dawn.jenkins@dlapiper.com ATTORNEYS FOR DEFENDANT MAZDA MOTOR OF AMERICA, INC.	*/s/ Brian Biddinger, with permission* G.R. (Randy) Akin Texas Bar No. 00954900 G.R. (RANDY) AKIN, P.C. 3400 W. Marshall Avenue, Ste. 300 Longview, TX 75604 Telephone: (903) 297-8929 Fax: (903) 297-9046 gra@randyakin.com Jesse J. Jenner NY Bar No. 1034776 jesse.jenner@ropesgray.com Brian P. Biddinger NY Bar No. 4479382 CA Bar No. 224604 brian.biddinger@ropesgray.com Matthew R. Shapiro NY Bar No. 5102017 matthew.shapiro@ropesgray.com Alexandra O. Fellowes NY Bar No. 5015946 CA Bar No. 261929 alexandra.fellowes@ropesgray.com ROPES & GRAY LLP 1211 Avenue of the Americas New York, NY 10036 Telephone: (212) 596-9000 Facsimile: (212) 596-9090 ATTORNEYS FOR DEFENDANTS AMERICAN HONDA MOTOR CO., INC., HONDA OF AMERICA MFG., INC., HONDA MANUFACTURING OF ALABAMA, LLC AND HONDA MANUFACTURING OF INDIANA, LLC

<u>/s/ Joseph P. Lavelle, with permission</u> DC Bar No. 367011 Andrew N. Stein D.C. Bar No. 1005411 **DLA PIPER LLP (US)** 500 Eighth Street, NW Washington, DC 20004 Telephone: (202) 799-4000 Facsimile: (202) 799-5000 joe.lavelle@dlapiper.com andrew.stein@dlapiper.com ATTORNEYS FOR DEFENDANTS BMW OF NORTH AMERICA, LLC AND BMW MANUFACTURING CO., LLC	
<u>/s/ Leslie H. Tronche, with permission</u> Leslie Honey Tronche State Bar No. 24078681 BECK REDDEN LLP l22I McKinney St., Suite 4500 Houston, TX770l0 Phone 713.951.6246 Fax713.951.3720 www.beckredden,com ltronche@beckredden.com ATTORNEYS FOR DEFENDANTS TOYOTA MOTOR CORPORATION, TOYOTA MOTOR SALES, U.S.A., INC., TOYOTA MOTOR MANUFACTURING KENTUCKY, INC., TOYOTA MOTOR MANUFACTURING, INDIANA, INC., TOYOTA MANUFACTURING, TEXAS, INC., TOYOTA MANUFACTURING, MISSISSIPPI, INC., SUBARU OF INDIANA AUTOMOTIVE, INC. AND GULF STATES TOYOTA, INC.	/s/ *<u>Jeffrey S. Patterson, with permission</u>* JEFFREY S. PATTERSON, LEAD COUNSEL State Bar No. 15596700 jpatterson@hdbdlaw.com JEFFREY J. COX State Bar No. 04947530 jcox@hdbdlaw.com SEAN N. HSU State Bar No. 24056952 shsu@hdbdlaw.com HARTLINE DACUS BARGER DREYER LLP 8750 N. Central Expressway, Suite 1600 Dallas, Texas 75231 (214) 369-2100 (214) 369-2118 (fax) ATTORNEYS FOR DEFENDANTS NISSAN NORTH AMERICA, INC. AND NISSAN MOTOR CO., LTD.

/s/ Michael J. Lennon, with permission Deron R. Dacus Texas State Bar No. 00790553 THE DACUS FIRM, P.C. 821 ESE Loop 323 Suite 430 Tyler, TX 75701 Telephone: (903) 705-1117 Facsimile: (903) 7051117 Email: ddacus@dacusfirm.com Michael J. Lennon (admitted pro hac vice) KENYON & KENYON LLP One Broadway New York, NY 10004-1007 Telephone: (212) 425-7200 Facsimile: (212) 425-5288 Email: mlennon@kenyon.com Susan A. Smith (admitted pro hac vice) KENYON & KENYON LLP 1500 K Street, N.W. Washington D.C. 20005 Telephone: (202) 220-4200 Facsimile: (202) 220-4201 Email: ssmith@kenyon.com Attorneys for Defendants and Counterclaim-Plaintiffs VOLKSWAGEN GROUP OF AMERICA, INC. and VOLKSWAGEN GROUP OF AMERICA CHATTANOOGA OPERATIONS, LLC	

CERTIFICATE OF SERVICE

The undersigned hereby certifies that all counsel of record who are deemed to have consented to electronic service are being served with a copy of this document via the Court's CM/ECF system per Local Rule CV-5(a)(3) on February 20, 2015.

/s/ Robert G. Pluta